



Sinopec Petroleum Engineering Technology Service Co., Ltd

2021 Environmental, Social and Governance (ESG) report

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About this Report

Scope of the Report

The 2021 Environmental, Social and Governance (ESG) Report (hereinafter referred to as the “ESG Report”) of Sinopec Oilfield Service Corporation (hereinafter referred to as “Sinopec Oilfield Service” or the “Company” or “we”) aims to give an objective and fair view of the management performance in the aspects of environmental, social and governance of the Company. For details of the governance part, please read in conjunction with the section “Corporate Governance” in Sinopec Oilfield Service Corporation Annual Report 2021, which will help readers understand the Company more comprehensively.

Unless otherwise specified, the scope of the Report includes Sinopec Oilfield Service Corporation and its subsidiaries, with the reporting period of the Report being from 1 January 2021 to 31 December 2021 (hereinafter referred to as the “Year” or the “Reporting Period”). In order to enhance the comparability and completeness of the Report, part of the disclosure also covers other time points.

Explanation of the Report

The Report has been prepared mainly pursuant to Appendix 27: Environmental, Social and Governance Reporting Guideline to the Main Board Listing Rules of The Stock Exchange of Hong Kong Limited (hereinafter referred to as “Hong Kong Stock Exchange” or the “Stock Exchange”), and Chapter 8: Social Responsibility of The Guidelines No. 1 for the Application of Self-Regulatory Rules for Listed Companies on the Shanghai Stock Exchange – Standardized Operation.

The information and cases in the Report are extracted from the original records of actual operations of Sinopec Oilfield Service Corporation and its subsidiaries. The Report is published in three languages: Simplified Chinese, Traditional Chinese and English. In case of discrepancy between the texts, the simplified Chinese version shall prevail. The electronic version of the Report can be downloaded from and read on the official website of Sinopec Oilfield Service, the official website of the Shanghai Stock Exchange and the website of the Hong Kong Stock Exchange.

Reporting Principles and Responses

Principle of Materiality: We have conducted stakeholder engagement and identified material issues, and defined the content and scope of the Report with reference to our identified results in compliance with the requirements of the Environmental, Social and Governance Reporting Guideline of the Stock Exchange. For specific details, please refer to the “Communications with Stakeholders and Assessment of Importance of Key Issues” of the Report.

Principle of Balance: The Report includes the disclosures of both positive and negative information, which ensures the impartial report on the ESG performance of the Company during the Reporting Period in its content.

Principle of Quantitative: The scope of data and the calculation methods employed in the Report have been indicated herein.

Principles of Consistency: Unless otherwise specified, the extent of disclosures of the Report has not been materially adjusted as compared with that of the ESG Report of the previous year, and consistent disclosure and statistical methods have been used.

Confirmation and Approval

The Report was approved by the eighth meeting of the Tenth Board of Directors on 29 March 2022 upon confirmation by the management.

Board's Statement

Sinopec Oilfield Service Corporation is keenly aware of the importance of exceptional ESG management to the Company, and never ceases to strive for the improvements of its ESG management. Acting as the highest accountable and decision-making body for ESG matters, the Board of Directors of the Company mainly performs the overall ESG-related management of the Company, and is responsible for monitoring and coordinating the management of ESG-related risks. The ESG strategy and reporting of the Company are also the sole responsibility of the Board of Directors.

The Company assesses the importance of environmental, social and governance issues on a regular basis. The specific assessment process and results are outlined in detail in the sub-section of “Communications with Stakeholders and Assessment of Importance of Key Issues” in the Annual Environmental, Social and Governance Report of the Company. The Board of Directors of the Company has assessed the potential impact and opportunities of ESG issues on the Company's overall strategies, and reviewed the results of the materiality assessment of the ESG issues. The Board of Directors has gained a good understanding of the ESG-related issues of the Company, and confirmed the current ESG-related management policies and ESG management concepts. Details of the Company's key ESG issues including safe operation, green development, quality assurance and responsible operation have been disclosed in detail in the Report.

In 2021, the Company has set relevant environmental goals regarding the use of resources, greenhouse gas emissions and emissions from operations based on its own development status, and the establishment and progress of such goals have been reviewed and discussed by the Board of Directors.

Environmental, Social and Governance Management System

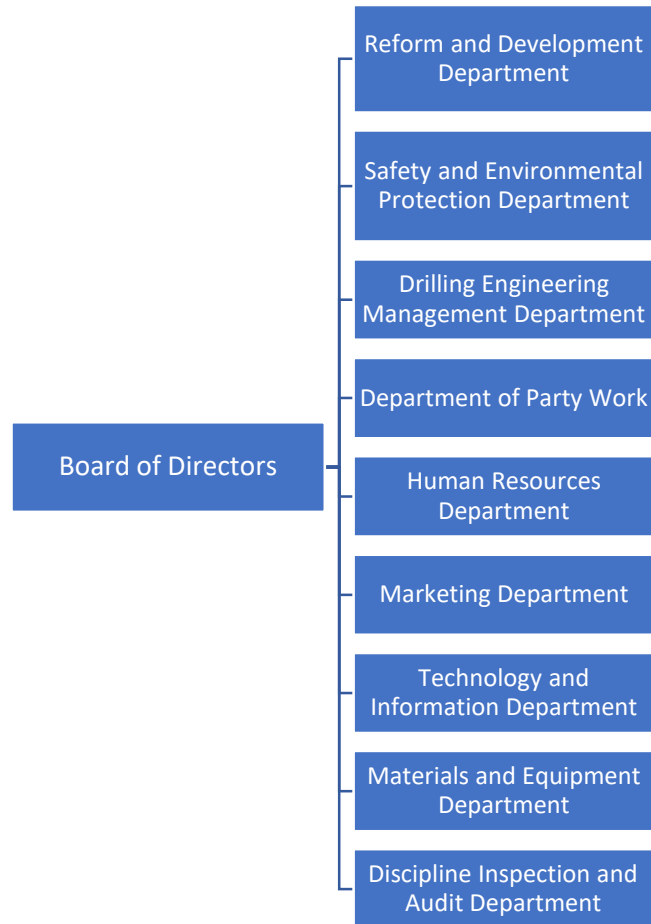
ESG Concept

Sinopec Oilfield Service Corporation implements the development strategy of “specialization, marketization, internationalization, high-end orientation, specialization”, and practices the development philosophy of “serving customers, supporting oil and gas, taking the lead in technology, creating value”, to fulfill its commitment to building itself into a world-class comprehensive oil service company.

We insist on paying heed to the health and safety of employees, attach importance to project quality control, pursue the goal of “zero injury, zero pollution, and zero accidents”, strive to achieve safe operation and green and low-carbon development, and at the same time actively perform social responsibilities and give back to the community. We will continue to improve corporate governance, integrate environmental, social and governance concepts into corporate culture, create more value for stakeholders, thus contributing more to the harmonious development of society.

ESG Management Structure

The Company proactively improves its ESG management system, and continues to promote the orderly implementation of its ESG management. The Board of Directors of the Company assumes ESG-related responsibilities, and is responsible for the formulation of the overall ESG strategy, the assessment of major ESG-related matters, and the regular review of the Company’s ESG-related performance. The Company has established an ESG management organization structure, covering Reform and Development Department, Safety and Environmental Protection Department, Drilling Engineering Management Department, Department of Party Work, Human Resources Department, Marketing Department, Technology and Information Department, Materials and Equipment Department, and Discipline Inspection and Audit Department. Each department in relation to ESG issues shall be responsible for promoting the implementation of ESG matters and conducting regular reporting to the Board of Directors at the Board of Directors’ request.



Honorary Awards

In 2021, the Company has successively won capital market awards, including the Best Infrastructure and Public Utility Company on the Golden Hong Kong Stocks Awards, the Chinese Enterprise ESG Best Corporate Governance Case Award and the Chinese Enterprise Award for Business Ethics. It has also received the Chinese Enterprise ESG Best Corporate Governance Case Award 2021, demonstrating the high recognition we have received in the capital market in relation to our ESG information disclosure and management.

Communications with Stakeholders and Assessment of Importance of Key Issues

The Company continues to enhance its management of environmental, social and governance. We have identified the major stakeholders, including shareholders and investors, government and regulatory agencies, employees, suppliers, customers, partners, communities and the public. In the process of ESG management, the Company improves the communication mechanism to maintain good communication with major stakeholders through multiple channels, deepens the understanding of the requirements of various stakeholders, and responds to the expectations and

demands of stakeholders in a timely manner, in order to consolidate the mutual benefit and win-win results.

Summary of major communication channels and concerns of stakeholders of Sinopec Oilfield Service		
Stakeholders	Communication channels	Topics of concern
Government and regulators	Important conferences, Policy advisory, Case report, Inspection, Documents exchange, Information disclosure	<ul style="list-style-type: none"> • Operation compliance • Corporate governance • Energy conservation
Shareholder and other investors	Shareholders' meeting, Periodical report, Interim report	<ul style="list-style-type: none"> • Profitability • Operating strategy • Transparent disclosure
Clients	Client visits, Client satisfaction survey	<ul style="list-style-type: none"> • Service quality • Information security
Employees	Employee satisfaction survey, Employee activity, Employee training, Internal publication	<ul style="list-style-type: none"> • Salary and welfare • Development and training • Occupational health and safety
Suppliers	Supplier identification, Communication meeting	<ul style="list-style-type: none"> • Fair cooperation • Honest agreement
Partners	Strategic cooperation talks, Bilateral talks	<ul style="list-style-type: none"> • Fair cooperation • Honest agreement • Joint development
Community and the public	Public benefit activities, Community activities, Recruitment talks, Opportunity of internship	<ul style="list-style-type: none"> • Community relationship • Employment promotion • Community investment and public welfare

The Company maintains communications with stakeholders through multiple channels. Based on the received feedbacks and the actual operation circumstance of the Company, we have summarized the stakeholders' focus on the Company's ESG fields. The key ESG issues identified by the Company include "health and safety", "product responsibility", "emissions", and "climate change", whereas the related topics include "environment and natural resources", "use of resources", "employment", "development and training", "labor standards", "supply chain management", "anti-corruption", and "community investment". We will respond to the content of each topic separately in the Report.



Safe Operation

Upholding the concepts of “HSC is the top priority” and “all accidents are preventable and avoidable”, the Company continues to improve its health and safety management system, and unceasingly strengthens its safe production management, in order to safeguard the production safety and the well-being of the employees.

Safety Management System

The Company attaches great importance to the construction of health, safety and environment (HSE) system. Adhering to the HSE policy of “people-oriented, safety first, prevention-prioritized and comprehensive governance”, the Company actively promotes the operation of the HSE management system infrastructure, and regulates the safety production system of the enterprise in a comprehensive manner.

In 2021, the Company continued to identify and strictly observed relevant laws and regulations of the country. Taking into account the national management systems including GB/T 45001, and in accordance with relevant requirements of China Petrochemical Corporation, the Company amended and released the document of HSE Management System Manual for Petroleum Engineering Companies (2021 Edition). Such amendment improves the integrity of laws, regulations, standards and systems, and in the meantime systematically enhances the overall HSE coordination and management of the Company.



In 2021, the Company organized and conducted a full-factor matrix pilot audit. Adhering to the principle of “returning to universal elements in professional management, and embodying universal elements with professionalism”, the Company organized the audit on a total of 12 subordinate units, 31 professional operating units, as well as 47 teams on the frontline (projects). Through such audit, the Company has promoted and implemented the concept of HSE management system in an effective manner. It has also gained a thorough understanding of its current HSE management status, standardized the operation of the enterprise system infrastructure, through which it has accumulated valuable experience for its upcoming full-factor audit and special audit of key elements.

During the Year, the Construction and Implementation of HSE Management and Control System Based on Systematic Management and Control of Risks reported by the Company has won the

Second Prize of the 30th Management Modernization Innovation Achievement Award of China Petrochemical Corporation.

Production Safety Management

With the strict compliance with the requirements of laws and regulations including the Production Safety Law of the People's Republic of China and the Special Equipment Safety Law of the People's Republic of China, the Company regards safe production as its core enterprise value which is put in place in every aspect and sector of its production and operation. The Company actively practices the concept of developing with safety, reinforces the establishment of safety and leadership, and further promotes the requirements of "Three Managements and Three Musts" under the principle of "industry management, business management, production and operation management must encompass safety management".

On-site Management

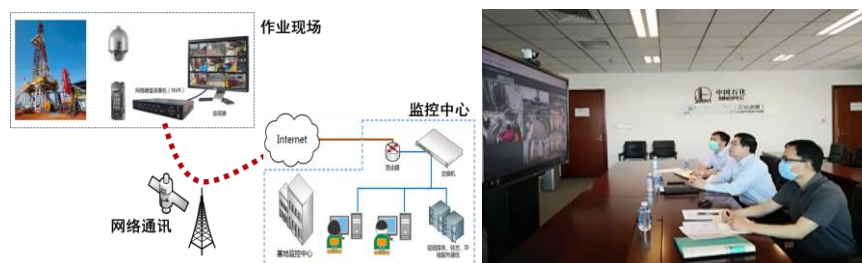
The Company has established a strict production safety management regime across its petroleum engineering construction sites. The Company conscientiously implements systems including the Ten Measures for Strengthening the Safety Management of Direct Operations and the Management Measures of Safety Score for All Staff, not to mention its amendments on the Safety Production Responsibility System for Petroleum Engineering Company Headquarter during the Year, altogether promoting the standardized construction of on-site safety management.

The Company clarifies the responsibilities of its management and employees from different business departments at all levels in relation to safe production. With the adoption of a cascade supervision model to address various safety production risks, we have implemented the assessment and accountability system in relation to our safety performance at all levels, and rationalized our inspection accountability system, which led to the effective advancement in our on-site safety management. In 2021, the Company has implemented an innovative management model and formed a supervisory management model, under which a total of 16 managers from the Safety and Environmental Protection Department have been assigned as the supervisors of the Company in all subordinate units to supervise and review our on-site safety work.

During the year, with the continuous efforts of the Company in improving its production video monitoring system platform, all construction and operation sites of our subordinate units have introduced video monitoring. Also, the headquarter and all units of the Company have arranged production, technology, equipment, safety and other professional management personnel by levels to conduct regular video monitoring and safety observations, which has helped not only to timely discover potential safety hazards on our operation sites, but also to rectify and stop any unsafe practice of our employees. Throughout the Year, all units of the Company have carried out safety observations for a total of 69,383 times, with an accumulating 15,143 potential hazards reported.

Construction and Application of Video Monitoring Platform

It is part of the Company's requirements for the headquarter to conduct video safety observations at least twice a week. Throughout the Year, our headquarter has conducted a total of 148 safety observations across our construction sites, with 604 potential hazards spotted and 12 video safety observation newsletters published. The Company has also actively implemented safety cross-checking via videos, under which our safety supervisors from each unit have led the team to uncover and supervise the rectification of a total of 395 issues and potential hazards regarding the operation of our employees, the use of labor protection, visual management, equipment safety and other aspects.



▲ Real-time monitoring of production sites

The Company continues to enhance its on-site inspections by way of training under the principle of “Four Nos and Two Directs”¹. Throughout the year of 2021, the Company has organized and rolled out a total of 7 on-site inspections across its key industrial areas in different parts of country including Southwest and Northwest China to provide inspection assistance and “diagnostic” on-site HSC supervising methods. In the meantime, the Company has monitored 77 management organizations on the frontline and construction sites, released HSE inspection reports in a timely manner, supervised and urged the rectification of 798 issues and potential hazards, and put forward 105 rectification recommendations.

In the meantime, the Company has actively engaged in the management of potential production safety hazards to continuously improve its overall production safety. In 2021, the Company has summarized and screened out safety hazards with high re-occurrence rates across its operation sites, and formulated a list for managing on-site potential hazards. In addition, the Company has clarified departments which would be held accountable, formulated implementation plans for the management of re-occurring potential hazards across all operation sites, and carried out focused safety hazard rectifications, updates and renovations for offshore drilling platforms with high risks and multiple potential dangers. Through the rectification of potential safety production hazards, our

¹ “Four Nos and Two Directs” refers to: no prior announcement, notice, report, escort nor reception, and go direct to the frontline and the sites. Originally from the unannounced inspection and visit system regarding safe production established and implemented by the State Administration of Work Safety in September 2014.

safety foundation has been consolidated and our on-site safety protection capabilities have been further improved.

Technology for Strengthening Safety

While being dedicated to ensuring safe production leveraging our scientific and technological resources, the Company continues to promote the construction of information technology for safe production, accelerates the promotion of internal scientific and technological information, and actively carries out scientific and technological innovation exchange activities.

With the backdrop of the establishment of the safety technology exchange platform by the Company, we have organized and released the Safety Technology Information for Petroleum Engineering through the “Safety and Environmental Protection” column on our website, which covers updates including domestic and foreign petroleum engineering safety technology trends, corporate safety technology, equipment innovations and safety standardization information. Such platform has promoted the exchange of frontline safety technology information, and further expedited the safety standardization and technological construction of the Company. In the meantime, the Company has offered a platform for the exchange of technical know-how for its subordinate units. In 2021, the Company has extended its invitations to 23 companies for the joint holding of 11 “Safety Lectures”, promoting the publicity and implementation of safe operation standards and reinforcing the exchange of management experience among different levels of employees.

In 2021, the Company has created numerous safety technology innovations and applications, with technology research projects including the “Automatic Processing System of Drilling Tubular Columns”, “Hydraulic Torque Wrench”, “Diesel- and Engine Oil-driven Low-pressure Automatic Parking and Unloading Device”, “Overflow Intelligent Alert System”, “New Conical Throttle Valve” and “Manual Tightening and Quick Pick-up Tool”, altogether establishing a more comprehensive protection to achieve safe production.

“Shengli Tiangong” Automatic Processing System of Tubular Columns

With the endless efforts of the R&D team of the Company in upgrading and improving the automatic processing system of our tubular columns and key equipment, we have marked the success in the developments and applications of automatic core equipment, including dynamic catwalks, two-story platform pipe arrangements, hydraulic power integrated systems and driller integrated control systems, not to mention the establishment of our DREAM-II Automatic Processing System of Drilling Tubular Columns, “Shengli Tiangong”. Such system not only realizes the entire-process automation of tubular column operation, but also eliminates the potential safety hazards of operators amid traditional tubular column operation, thus improving the safety of construction and operation.



▲ “Shengli Tiangong” automatic processing system of tubular columns

Emergency Control

Strictly complying with laws and regulations including the Emergency Response Law of the People's Republic of China, the Company continues to improve its emergency management command system, propel the construction for standardizing emergency procedures, and further improve its on-site emergency control capabilities.

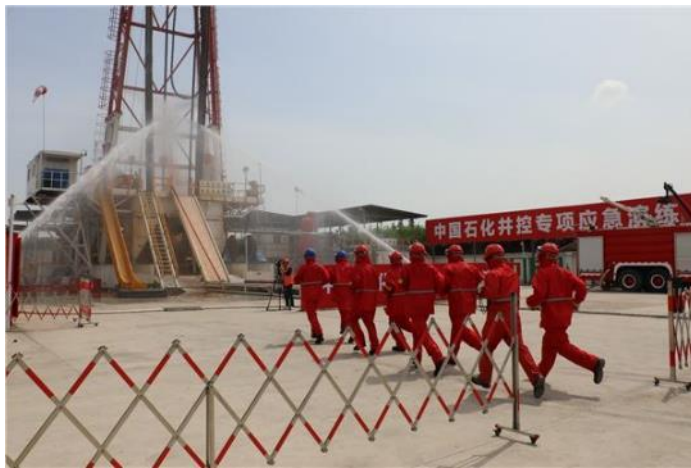
Along with the establishment of our emergency control center, the Company integrates three systems under the overall framework of our integrated cloud platform (ICP) project, namely the production operation system, the well bore business integration platform and the production video monitoring mechanism, forming an emergency command and management system with top-to-bottom linkage among the command centers of all subordinate units.

The Company actively strengthens the establishment of voluntary emergency response teams on the frontline, and continuously improves its emergency plans and emergency response capabilities

by clarifying responsibilities and division of labor, strengthening daily targeted training, and conducting regular practical drills.

Sinopec's Special Emergency Drill for Well Control

On 16 April 2021, we organized and conducted an emergency drill, focusing on scenarios of overflow emergency disposal, emergency replacement of semi-sealed gates, blow-off and ignition at the safety training base of the employee training center of the Southwest Petroleum Engineering Co., which has not only further improved our well control and emergency response capabilities, but enhanced our well control and emergency response systems across industrial areas.



▲ Special emergency drill for well control

In regard to major emergency incidents, for instance, overflow and well leak, the Company has established a statistical analysis system for routine management, and conducted monthly summary analysis on well control abnormalities and complex downhole faults. On the other hand, in regard to major emergencies that have occurred, topic sessions will be convened to review the process of such faults, identify reasons for management and operation, analyze issues stemmed from design, and propose measures for improvement.

In 2021, the Company has carried out corresponding work in relation to its emergency response to extreme climates. To ensure our optimal production performance with safety during the winter, the Company has conducted a random video check focusing on areas of winter protection and heat preservation for its 83 drilling teams at the drilling sites located at different industrial areas across Northwest China, North China and Northeast China, in order to effectively implement preventive measures on our operation sites to ensure safe production during the winter.

Safety Education

The Company actively involves in safety education for its employees in order to continuously raise their safety awareness through various safety production education training, such as through the publicity and implementation of safety control system and on-the-job safety practical training. In 2021, all subordinate units of the Company have carried out more than 980 HSE management system training sessions with the support of more than 38,200 participants. Such training helps managers at all levels to establish and improve the concepts of HSE management system, and further creates a system operating atmosphere of “learning the system, complying with the regime, and observing the standards” for all employees. Meanwhile, the Company has implemented various special safety education and training, including 3,180 intensive shift training sessions with 125,000 attendances; certification and professional training with 376,000 attendances; and practical training with 73,000 attendances, altogether helping our employees to improve their safety quality, professional skills and management capabilities.

Key Performance

In 2021, a total of 543 working days has been lost due to work-related injury.

Over the last three years, the number of work-related deaths and ratios² per year are:

Year	Number of work-related fatalities (People)	Rate of work-related fatalities (%)
2021	1	0.0014
2020	1	0.0014
2019	1	0.0014

Protection of Occupational Health

The Company attaches great importance to occupational health protection for its employees. Strictly abiding by relevant laws and regulations including the Law of the People’s Republic of China on the Prevention and Control of Occupational Diseases and the Production Safety Law of the People’s Republic of China, the Company has continuously improved its occupational health management system, conducted risk assessments of occupational diseases, and implemented protection measures for the well-being of its employees.

The Company has taken the following measures to ensure multiple protections for the occupational health of its employees:

² Calculated by dividing the number of deaths due to work-related injury by the total number of employees at the end of the Year

Measures	Guarantee
Labor Protection Products	<ul style="list-style-type: none"> • Providing employees with comprehensive and high-standard labor safety protection products • Setting clear requirements for occupational disease protection facilities and other production facilities to begin service simultaneously • Arranging occupational health management personnel to instruct on the proper use of labor protection products among employees • Organizing special inspections of labor protection products
Well-being of Employees	<ul style="list-style-type: none"> • Organizing routine physical examinations for all employees and occupational health examinations for personnel at positions associated with occupational diseases, and providing EAP³ special services, for instance, mental health counselling • Carrying out health status assessment, and adjusting positions for personnel with occupational contraindications and other abnormal health conditions • Formulating “One person, One policy” health intervention plans and follow-up monitoring for high-risk personnel
Emergency Response	<ul style="list-style-type: none"> • Formulating internal systems such as emergency plans for construction and operation, emergency medicines and guidance on equipment allocation • Allocating emergency medical and rescue equipment, and providing automatic external defibrillator (AED) in qualified places

³ EAP (Employee Assistance Program): a program which provides assistance to employees, also known as Employee Psychological Assistance Program or Psychological Management Technique for All Employees

Training and Drills	<ul style="list-style-type: none"> • Carrying out occupational health training of all kinds • Organizing occupational health emergency plan drills to improve employees' emergency response capabilities and levels
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In the meantime, the Company has fixed its focus on rolling out its management on noise control during the Year, and compiled a series of management documents, including the “Sinopec’s Alert Report on Personal Risks of Hearing Damage for Operators Exposed to Noise”, the “Assessment Report on Workplace Noise Hazard and Hygiene”, the “Sinopec’s Health Management Plan for Operators Exposed to Noise” and the “Guidance on the Prevention and Control of Noise in Petroleum Engineering Well Borne Operation Premises”. The Company has also carried out pilot projects in relation to the investigation and research on our exposure to noise hazards, which has not only strengthened the prevention and control of the sources of noise pollution, but also continued to improve the management of occupational diseases at the workplace.

Green Development

The Company has actively responded to the government's call for "achieving hitting peak carbon emissions by 2030 and carbon neutrality by 2060", and comprehensively promoted the implementation of green and low-carbon strategy. We have also continued to implement the concept of "lucid waters and lush mountains are invaluable assets", and are committed to implementing the concept of green development into the whole business process, continuously improving resource utilization efficiency, optimizing and deepening the cleaner production model, and effectively reducing the environmental impact of business. The Company has earnestly implemented the requirements of the Environmental Protection Law of the People's Republic of China, the Energy Conservation Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste and other relevant laws and regulations, and has continued to improve internal environmental management policies and systems such as HSE Management System for Petroleum Engineering Company.

Responses to Climate Change

Risks and Opportunities of Climate Change and Impact on the Company

The Company has identified and evaluated climate risks and opportunities in combination with climate change scenarios and its own business segments, and formulated relevant response policies to mitigate or avoid the impact of climate change on enterprises.

Risks from climate change:

Risk category		Risk description	Countermeasures
Physical risks	Acute risks: Extreme weather such as typhoons and heavy rains	Damage to construction sites, office buildings and equipment, causing asset losses; abnormal production affected by equipment damage, employees' inability to work, transportation interruption, etc.;	Formulate emergency response plans for natural disasters, and continuously improve the emergency response mechanism for natural disasters; identify potential asset damage and purchase necessary insurance;
	Chronic risks: Continuous high temperature, drought, etc.	The rising temperature will require the Company to equip more refrigeration equipment,	Apply more energy-efficient refrigeration equipment; scientifically arrange production plans, deploy production organizations carefully,

		increasing its energy consumption and operating costs; employees may not be able to work outdoors for a long time during the hot season, which affects its operational efficiency;	and improve operational efficiency;
Transition risks	Policy and legal risks	The government may introduce more stringent policies and regulations to mitigate climate change, which may increase the workload of business compliance, and the number of related lawsuits or claims;	Closely monitor changes in environmental laws, regulations and policies and respond in a timely manner;
	Technical risks	Failure in identifying relevant risks and applying low-carbon technologies in a timely manner, resulting in the low-carbon transformation of products falling behind industry peers and affecting the efficiency of low-carbon transformation;	Increase the proportion of new energy use and actively carry out cooperation with peers; research new cooperation methods in technologies and equipment; improve the Company's own new technology and new equipment research and development ability;
	Market risks	Increase in raw material and energy costs; decrease in	Build an energy information platform to monitor and analyze

		demand for fossil fuels;	energy use, and improve energy management and control capabilities; increase market development and increase the proportion of external market business;
	Reputational risks	Obtain negative feedback from stakeholders due to poor performance in climate change and sustainability.	Enhance the Company's sustainable development capabilities and actively respond to climate change; enhance management transparency in relevant aspects and respond to the concerns of stakeholders.

Opportunities from climate change:

Opportunities		Countermeasures
Resource efficiency	<ul style="list-style-type: none"> Develop more energy-efficient equipment, construction and technologies to meet the market's low-carbon demand Incentives of green transformation supportive policies 	<ul style="list-style-type: none"> Actively explore and apply new technologies, new equipment, and new processes to improve resource use efficiency and reduce energy costs Identify and respond to government support policies and green projects Strengthen the research and development of low-carbon technologies, and continue to increase the proportion of green and low-carbon emission products Identify and participate in emerging markets
Product and services	<ul style="list-style-type: none"> Research and development of green and low-carbon products Solutions for climate change in the industry 	
Market	<ul style="list-style-type: none"> Changes in user preferences and expansion of green market demand 	

	<ul style="list-style-type: none"> • Increased demand for integrated energy services • International market expansion 	<ul style="list-style-type: none"> • Promote the development and utilization of renewable energy
Adaptability	<ul style="list-style-type: none"> • Energy substitution and diversified solutions • Participation in renewable energy projects 	

Emission Control of Greenhouse Gases

Based on the characteristics of petroleum engineering production and operation, the greenhouse gases generated during the Company's operations are derived from the use of electricity and fuels converted from fossil fuels, mainly including carbon dioxide, methane and nitrous oxide.

In 2021, the greenhouse gas emissions were 2,446,000 tons, and greenhouse gas emissions per RMB10,000 was 0.435 tons.

During the year, based on our own operating conditions, we set the following greenhouse gas emission control target: the greenhouse gas emission in 2022 shall not exceed 2,446,000 tons.

Resource Usage Management

The Company strictly complies with the Energy Conservation Law of the People's Republic of China, the Renewable Energy Law of the People's Republic of China, the Circular Economy Promotion Law of the People's Republic of China and other laws and regulations and local energy-saving policies, continuously improves the internal resource usage management policies and systems, and constantly enhances the efficiency of use of energy and water resources, so as to conserve resource usage.

Energy Saving and Consumption Reduction

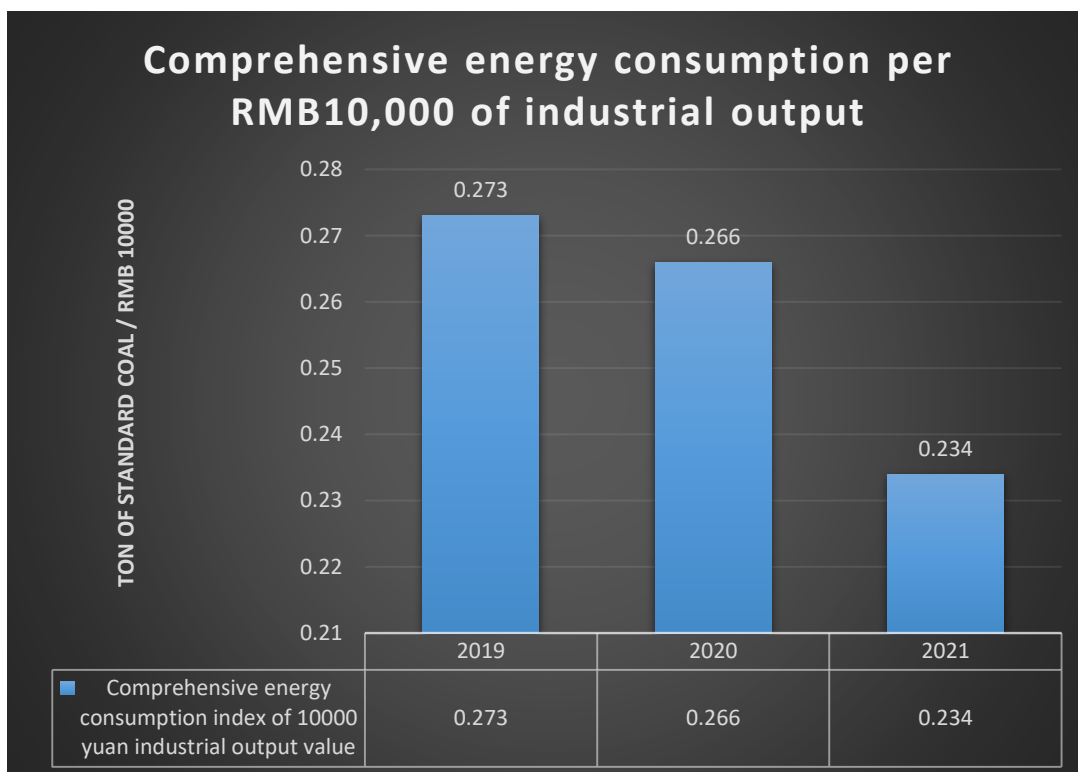
The Company continued to promote the "Energy Efficiency Improvement" plan and vigorously promoted the application of clean energy and low-energy technologies. Meanwhile, we actively carry out advocacy activities to improve employees' awareness of energy conservation.

As of the end of 2021, the Company has implemented 10 "Energy Efficiency Improvement Plan" projects, with a total investment of RMB88.45 million, saving about 68,800 tons of standard coal.

In order to promote energy saving and consumption reduction, the Company took the following measures:

Promoted clean energy	<ul style="list-style-type: none">□Enhanced the implementation of clean energy projects such as grid-powered drilling, grid-powered fracturing, gas power and solar energy, and replaced equipment and facilities with high energy consumption and high emission.
Adopted low energy consumption technologies	<ul style="list-style-type: none">•Continued to promote energy-saving technologies such as oil-to-gas, oil-to-electricity, recovery of waste heat and pressure; widely used new energy-saving devices such as dual-fuel engines, energy-saving frequency conversion motors, electric fracturing skids, and dynamic powerless compensation.
Enhanced employees' awareness of environmental protection	<ul style="list-style-type: none">•Guided employees to work in a green manner by issuing and posting proposals and energy-saving reminder cards; launched the "Empty Plate Campaign" to guide employees to practice saving; held public open days to publicize the concept of low carbon; called on employees to participate in green and low-carbon activities.

In 2021, the Company's comprehensive energy consumption per RMB10,000 of industrial output was 0.234 tons of standard coal, representing a decrease of 0.032 tons of standard coal per RMB10,000 and 0.039 tons of standard coal per RMB10,000, respectively as compared with 2020 and 2019.



On this basis, our energy use target for 2022 is no more than 893,108 tons of standard coal, and the energy use intensity is no more than 0.232 tons of standard coal per RMB10,000.

Water Conservation

The Company is committed to continuously reducing the use of water resources and improving the efficiency of use of water resources through the application of water-saving technologies, wastewater recycling process, project operation and management and other aspects. The water sources of the Company are mainly surface water, groundwater and municipal water supply, and there has been no shortage of water resources.

The Company continues to standardize the process management of statistics, analysis and improvement of water resource consumption, and greatly reduces the consumption of freshwater through the treatment and utilization technology of fracturing flowback fluid, so as to achieve the goal of water-saving and control. In 2021, the planned industrial water used was 7,130,000 tons, and the actual water used was 6,805,900 tons. The annual industrial water used target per RMB10,000 of output was 2.0 tons, and the actual water used was 2.0 tons per RMB10,000.

The water-saving goal we set for this year is that the water use intensity will not exceed 2.0 tons per RMB10,000 in 2022.

For areas with relatively dense operation teams, we uniformly established drilling fluid transfer stations and increased the frequency of use of drilling fluids. In respect of underground operation, the Company actively promotes the sewage well cleaning process to realize the full recovery of drilling and operation wastewater. At the same time, the Company continues to promote the reuse of domestic wastewater on the construction sites by reasonably configuring domestic wastewater treatment devices, in a bid to realize the reuse of domestic wastewater after treatment.

Energy use (Scope: domestic projects of Sinopec Oil Services Headquarter and its subsidiaries)

Indicators	2021 data	2021 data
Total energy consumption (MWh)	8,128,791.58	8,428,261.77
Direct energy consumption (MWh)	6,503,368.13	6,973,670.94
Petrol (MWh)	269,092.62	196,100.37
Diesel (MWh)	5,709,752.58	6,101,731.29
Natural gas (MWh)	469,161.92	620,548.62
Coal (MWh)	2,907.56	5,408.06
LPG (MWh)	796.75	1,619.05
Raw Petroleum (MWh)	10,696.56	10,767.73
Other energy (MWh)	40,960.14	37,495.82
Indirect energy consumption (MWh)	1,625,423.45	1,454,590.83
Purchased Electricity (MWh)	1,458,880.49	1,293,611.43
Heating Power (MWh)	166,542.96	160,979.40
Comprehensive energy consumption of industrial output value (ton of standard coal / 10000 yuan)	0.234	0.266

Notes:

1 Energy consumption data is calculated according to the consumption of gasoline, diesel, natural gas, coal, liquefied petroleum gas, crude oil, electricity, heat and other energy and the conversion factors listed in the national standards of the People's Republic of China of General Principles for Calculation of Comprehensive Energy Consumption (GB/T 2589-2008).

2 Other energy mainly refers to the fuel converted from fossil fuels such as waste oil.

- 3 The operation of the Company does not involve the use of packaging.
4. The Company furtherly refined the statistical caliber for LPG and restated the LPD data for 2020.

Pollution Prevention and Control

The Company has earnestly implemented relevant laws and regulations of the PRC and local policies, formulated relevant internal systems such as the Environmental Protection Management Measures, Energy and Water Conservation Management Measures, Pollution Prevention and Control Management Measures and Radiation Management Measures, so as to clearly state the requirements, responsibilities, processes and contents of cleaner production. It also regularly assigns special personnel to check the implementation of environmental protection policies and systems by means of HSE Management System review, HSE inspection, special environmental protection inspections, etc. We continue to carry out air pollution, wastewater treatment, waste disposal and other pollution control work. At the same time, as a non-key pollutant discharge unit, we strictly implement the Special Emergency Plan for Environmental Emergencies of Sinopec and are committed to establishing cleaner production works. In addition, all affiliated units shall pay taxes related to environmental protection in accordance with the provisions of relevant local government departments. See Section VI “Environment and Social Responsibilities” in the Company’s 2021 annual report for penalties in relation to the environment.

Air Pollution Control

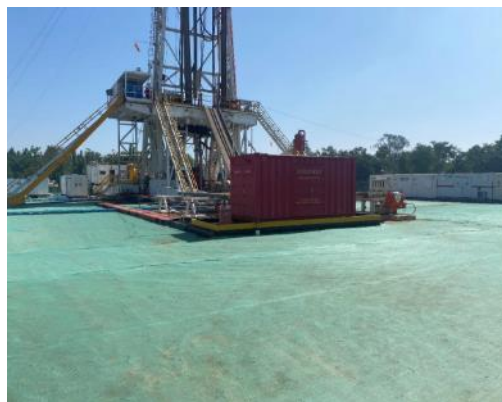
The Company’s air pollution mainly comes from the unorganized emissions of various non-road mobile machinery, diesel and gasoline vehicles and other equipment, as well as the dust generated at the construction sites. During the construction and operation of projects, the Company actively responds to the government’s warnings for heavy air pollution, and initiates emergency plans for such warnings to effectively reduce air pollution. We have adopted measures such as increasing the frequency of water spraying, laying dust-proof nets, diesel engine exhaust gas treatment and grid-powered application, etc., to effectively reduce dust and exhaust gas emissions.

Wastewater Treatment

The Company earnestly implements relevant standards and regulations for sewage discharge, while at the construction sites, construction teams at all levels would carry out anti-seepage, anti-overflow, and anti-leakage measures, so as to continuously strengthen the centralized treatment of industrial wastewater and domestic sewage. Based on process requirements, we have increased



▲ Spray water at the well site to reduce dust



▲ Dust-proof nets laid at the construction site

the reuse of industrial wastewater and domestic wastewater, thereby continuously reducing wastewater discharge.

In 2021, the Company continued to promote the use of environment-friendly toilets on the frontline of production, equipping a total of 779 sets of such toilets. Meanwhile, in response to the leakage of construction wastewater, the Company has also equipped emergency materials including dirt collection bags, oil dispersants, woven bags, and absorbent felts in order to provide protection.

In the 2021, 421,000 cubic meters of domestic sewage, 185,000 cubic meters of drilling wastewater, and 1.103 million cubic meters of operation wastewater were treated by the Company in compliance with relevant regulations.



▲ Centralized treatment of industrial wastewater and domestic sewage

Waste Disposal

At present, the waste generated during the operation of the Company mainly includes oil-based drill cuttings and solid waste, of which oil-based drill cuttings are hazardous waste. In 2021, the Company had disposed of 1.707 million tons of general solid waste through harmless treatment or comprehensive utilization, and 165,000 tons of oil-based cuttings through thermal analysis and other processes; all in compliance with relevant regulations. On this basis, our waste disposal goal is to classify all general solid waste according to the requirements of the place of operation in 2022.

The Company strictly implements classification for general industrial solid waste, hazardous waste and domestic waste, and hires qualified companies to recycle various solid waste. For hazardous waste disposal, the Company sets up temporary storage sites in compliance with relevant requirements, and conducts monitoring on hazardous waste disposal by external parties to continuously optimize the disposal methods of hazardous waste.



▲ Waste disposal device

Practicing the concept of environmental protection in overseas operations

We have strictly implemented “green exploration” overseas. For example, in Saudi Arabia, during transportation, we required vehicles to open up new roads as few as possible by adopting “one-way” driving, and using BeiDou navigation system to effectively monitor vehicles. Before the team has left, it was divided into groups to implement the approach of “self cleaning by each group followed by cleaning by the line cleaning team”, so as to ensure that all survey lines and camps were cleaned. The team collected waste, waste oil and other wastes according to the classification, and collected domestic garbage uniformly to the main camp of the field unit, then rented local trucks to bring them back to the local garbage dump for disposal.



▲ "One line operation method"



▲ waste collection

Ecological Protection

The Company is committed to reducing the impact on the local environment during operation. We strictly comply with the requirements of the Water and Soil Conservation Law of the

- 1 Adhering to the use of environment-friendly and technological construction methods
- 2 Preferring low-toxic, non-toxic or harmless materials to make drilling fluids, as well as acidized fracturing fluids and other environment-friendly materials
- 3 Restoring the ecological environment of the operation areas properly by continuing to build green and environmental protection projects, in a bid to contribute to environmental beautification and greening

People's Republic of China, the Environmental Impact Assessment Law of the People's Republic of China and the laws and regulations of the places of overseas operation, and carry out environmental and ecological protection in the places of project operation through the following measures:

Overseas Ecological Protection

The Company attaches great importance to environmental protection in production, and the Ecuadorian project of East China Oil Engineering Company protects the Ecuadorian forest with technological innovation. In order to ensure no damage to natural resources, we have continuously optimized the process of rock cuttings grinding and particle size screening,

improved equipment and enhanced the efficiency of grinding and screening, as such we summarized the methods of “dry and wet waste separation”, “common screening of slurry and rock cuttings slurry”, etc., thereby effectively treating rock cuttings, waste slurry and sewage of three drilling teams at the same time.



▲ Rock Cuttings Reinjection Team of Ecuadorian Project

Ecological Restoration of Drilling Sites

In 2021, Shengli Oil Engineering Company actively implemented the “Green Enterprise Campaign” to carry out ecological restoration of the “Ziye Well No.1” (梓页 1 井) project located in Tongmeng Village, Guizhou Province. After the completion of the drilling project, Shengli Oil Engineering Company thoroughly cleaned the well pad, sewage tank, blowout tank and hidden corners of the construction site, so as to make the surface of the construction site clean, free of sundries and surface soil pollution, as well as restore the landform and complete the handover of the well pad, thereby realizing the green transformation of the construction site.



▲ Ecological restoration of drilling sites

Quality Control

The Company always adheres to the quality policy of “quality is always one step ahead” and continuously optimizes the management system, improves management measures, and enhances quality awareness to ensure the quality of projects and improve the quality of service.

Optimize Management System

The Company strictly abided by the Standardization Law of the People’s Republic of China and the Metrology Law of the People’s Republic of China, and all production and business units have established a quality management system and passed the certification in accordance with the requirements of GB/T 19001. The construction of each unit is based on quality risk-based thinking, and adopts the PDCA⁴ cycle method which integrates standard requirements into the business process of each unit. At the same time, each unit regularly organizes internal audits and management reviews. In addition, by conducting inspections on the effectiveness of the quality management system and carrying out audit observation, the Company guides each unit to effectively control quality risks to ensure the stability of product quality, project quality and service quality.

During the Year, we actively promoted the transformation of the management model from “functional management based” to “project management based”, and issued the Guiding Opinions on the Construction of Project Management System for Petroleum Engineering Companies (Trial) to form a project-based management system centering on project management and supporting by the construction of talent pool.

In addition, the Company further implemented the deployment of resource optimization, and fully completed the optimization of the market layout with drilling being the main line, effectively improving its efficiency of resource allocation within the system, and enhancing its service support capabilities and market competitiveness.

Ensuring the Quality of Projects

Quality Management System

The Company continues to abide by and improve the Malfunction Management Measures for Drilling Engineering, Wellbore Engineering Expert Database Management Measures, Twelve Measures to Strengthen the Control of Complex Malfunction, and Quality Management Measures for Petroleum Engineering Company and other quality management systems, so as to continuously improve the quality management level and scientifically ensure the quality of the projects.

The Company strictly implements the engineering quality control in entire process. Before the construction of the project, we collect and analyze information from adjacent wells, clarify construction and design plans and approve these plans level by level, and provide technical

⁴ PDCA is a quality management system that combines Plan, Do, Check and Action

details to the construction team; during construction, we conduct hierarchical management and level-by-level approvals of downhole faults, continuously strengthen the dynamic management and risk control of key wells, provide technical guidance for key wells and wells with complex malfunctions.

We summarize data including the indicators, timeliness and project qualities of drilling from each construction unit and operation site through the statistical management system of drilling indicator, and report in the form of production daily report, weekly report on key wells, special report and WeChat work groups in order to keep track of the well control and engineering technical work of each unit and operation site, and continuously conduct tracking and analysis of key wells to ensure that risks are under control during construction. In addition, we leverage the information-based production platform to quantitatively evaluate the timeliness, accuracy, and standardization of production operations, comprehensively compare the construction conditions of various units, discover potential problems in time, and then supervise each unit to continuously optimize the team structure, strengthen technical support, and strengthen quality management. In 2021, all newly implemented projects have been fully managed online.

The Company also reports quarterly on the project quality of each construction unit, and ranks them by their timeliness of resolving complex failures, so as to supervise and urge each unit to conduct special analysis and rectify existing problems. We also implement “one well, one policy” system for the enforcement of accountability and penalties on construction units found with problems, and subsequently conduct cause analysis for project management, tool use, geology, design and other aspects, with the purpose of summarizing experience and lessons and forming a closed-loop of quality control.

Awareness Campaigns on Quality

In order to further enhance the employees' awareness and technical level of project quality, the Company actively carries out various quality training activities.

Implementation of Well Control Technology Training

In 2021, the Company held technical training courses for technical and management personnel, platform managers, engineers, drillers and other key personnel with major positions in well control in operation sites in the Southwest and Northwest Area, in which more than 80 personnel with major positions have received training. In accordance with the specific requirements of the operation sites, teaching and practical methods were adopted to further improve the well control capability level of on-site personnel with management and operational positions and to cultivate talents in well control for grass-roots team.



▲ Well control technology training courses

"Quality Day" and "Quality Month" Campaigns

In 2021, the Company continued to carry out “Quality Day” and “Quality Month” campaigns. The campaigns revolved around the theme of “in-depth implementation of quality improvement and vigorously promoting the construction of China into a powerhouse of quality”. By organizing various forms of activities such as seminars, exchange meetings, knowledge competitions, the concept of "quality-oriented enterprise, quality-strengthening enterprise" was firmly established. Coupling with the actual situation of the Company, the level of quality management was improved and the quality awareness of all personnel was enhanced, thereby optimizing the quality of products, services and projects, and promoting the overall sustainable high-quality development of the Company.



▲ Site of quality month

Social Recognition

During the Year, the Company's quality control of projects was recognized by the industry and has won various quality project awards, primarily including:

- the participation in the high-pressure natural gas transmission and distribution system project in Foshan City has been awarded with the 18th China Zhan Tianyou Award of Civil Engineering;
- the undertaking in the construction of Ningguo-Jixi section of Yangzhou-Jixi Expressway has been awarded with the PRC Construction and Engineering Luban Award;
- 1.70 million tons/year coal to methanol and olefin conversion project participated with Zhong An United Coal Chemical Co., Ltd. has been awarded with the National Gold Award for high-quality engineering



▲ China Zhan Tianyou Award



▲ National Gold Award for high-quality engineering

Pursuing Quality Service

The Company adheres to the concept of customer-centric, creating more values for customers, and continuously improves customer satisfaction. The Company has established a customer satisfaction evaluation method with characteristics of petroleum engineering, formulated the "Customer Satisfaction Evaluation Measure for Petroleum Engineering Companies", and determined the user satisfaction evaluation index system, measurement model and mathematical calculation method, survey plan design as well as statistical analysis on user satisfaction, which have improved the scientificity and effectiveness of evaluation.

At the same time, the Company continues to optimize the feedback collection mechanism in order to fully understand customer needs. Through the application of the production scheduling system and market information management system, we have comprehensively improved the efficiency of customer feedback reception, complaint and suggestions processing and customer return visits, which have effectively improved our service quality. During the reporting period, the Group did not receive any complaints about products and services that have caused significant impact on operations.

In addition, the Company further strengthens the construction of top-level strategies, promotes the establishment of a cooperation mechanism for mutual visits and mutual trust with major parties. Through the establishment of a normalized cooperation communication and coordination mechanism for national market projects with the Middle East, North Africa, Central Asia, West Africa, Russia, Brazil and other overseas regions, the Company conducts frequent visits between senior personnel, gains in-depth understanding to satisfy different needs of customers and continuously improve its international service capabilities.

Responsible Operation

Responsible operation is the foundation of the Company's steady development. In order to maintain a sustainable development, the Company strictly abides by the national laws and regulations, continuously promotes the construction of an integrity culture, implements the protection of intellectual property, strictly manages the security of customer information, and continuously improves the supplier management system.

Constructing Integrity Culture

The Company gives particular attention to improving the integrity of the Party members in strict compliance with the relevant laws and regulations including the Provisions on the Integrity of State-owned Enterprise Leaders and the Audit Law of the People's Republic of China, and formulates rules and regulations including the Working Rules of the Commission for Discipline Inspection for the purpose of strengthening the implementation of “two responsibilities”⁵. The Company continued to further promote the inspection work of the Party Committee, and completed 2 rounds of inspections with a total of 23 units throughout the year, which comprehensively promoted the extension of strict party governance to the grassroots level.

The Company continues to improve the supervision and management mechanism, and implements "full supervision"⁶ in a meticulous and practical manner. During the Year, we revised the Detailed Rules for the Operation of the Supervisory Committee of the Company, formulated a responsibility list of discipline supervision of member's departmental function, and issued the 2001 Key Supervision Plan of Supervisory Committee. In 2021, we carried out a total of 15 “full supervision” projects including strengthening the refined project management and improving the standardization of material procurement management. At the same time, we regularly convened supervisory committee meetings in order to identify oversight findings in a timely manner, carried out extended governance for prominent problems, and supervised relevant departments to perform their duties according to orders.

The Company integrates the supervisory forces of various districts across the country, actively explores the sharing of external supervision resources, and jointly creates a clean and transparent external market environment. As of 2021, we have established cooperation areas for joint prevention and governance of integrity risks in Dongying and Hubei, and implemented a daily supervision mechanism for the prevention and governance of integrity risks with the Northwest

⁵ The third plenary meeting of the 18th Central Committee of the Party proposed the Implementation of the Responsibility System for Clean and Honest Administration under the Leadership of the Party Committee and the Supervision of the Disciplinary Committee, and a practical accountability system shall be formulated and implemented.

⁶ Refer to the effective integration of supervisory resources such as internal party supervision and enterprise supervision, with an aim to enhance supervisory efficiency, gather supervisory efforts so as to achieve full supervision of all personnel exercising public power.

Bureau, promoting the construction of joint education, key link control and disciplinary review joint mechanisms.

The Company has established smooth channels for reporting letters and visits, including reporting telephone numbers, reporting mailboxes, and reporting boxes. At the same time, the Company strictly followed the principles of “centralized management, collective deliberations, scientific authorization, full-process tracking, and closed-loop operation” to formulate special handling procedures, register reported cases and verify clues to the problems.

The Company conducts anti-corruption training every year, and carries out integrity education through document notifications, holding warning education conferences, and watching warning education videos. In 2021, an anti-corruption education month was launched with the theme of “Learning Party History, Strengthening Discipline, and Promoting Integrity”. Through organizing intensive learning, conducting integrity risk investigation, organizing integrity seminars, and promoting rectification and improvement, the majority of party members and cadres have been ideologically educated with great improvement in understanding and promotion in their works. During the Year, the Company carried out one anti-corruption education campaign for all members of the Board and employees.

During the Year, the Company has not involved in any corruption-related lawsuits.

Protection of Intellectual Property Rights

The Company strictly complies with the Trademark Law of the People's Republic of China, the Patent Law of the People's Republic of China and other laws and regulations. The Company also formulates and revises (as necessary) the Intellectual Property Management Measures and other rules and regulations to provide standardized guidance for the application and use of intellectual property rights. While protecting self-owned intellectual property rights, we try to avoid infringement of other parties' intellectual property rights. In 2021, the Company applied for a total of 894 domestic patents, including 434 invention patents; obtained 541 authorized patents, including 107 invention patents; applied 3 foreign-related patents and 1 authorized patent.

In 2021, the Company won for the first time the “Advanced Unit of Intellectual Property Management” awarded by Sinopec Group; the patent “A Logging Method” won the 22nd China Patent Silver Award.

Information Security Management

The Company strictly follows the Network Security Law of the People's Republic of China, the Personal Information Protection Law of the People's Republic of China, the Management Measures for the Information Security Protection and other relevant laws and regulations, and establishes internal systems such as the Management Measures for Cybersecurity of Petroleum Engineering Companies for the purpose of meeting the Company’s objective of “practical,

systematic and normalized” cybersecurity work and protecting the Company’s overall cybersecurity. We continue to improve the management model of information security, define management function of information security, implement management responsibility of information security, and establish a management system with a leading group centered on informatization and supported by the heads from various departments. In 2021, the Company’s major information system has passed the Level 2 certification of Classified Cybersecurity Protection.

The Company adopts a variety of cybersecurity management measures to ensure information security, including the establishment and maintenance of corporate IT asset accounts, strict control of access to machine rooms and equipment rooms, strict restrictions on the allocation and access of privileged accounts and remote operation and maintenance accounts, conducting regular vulnerability scanning and malicious code inspection and security configuration verification, etc. At the same time, the Company regularly supervises and inspects the confidentiality of secret-related personnel, and handles violations and leaks.

In addition, the Company strictly adheres to the information security management during the production and operation process, sets up corresponding management methods for the confidentiality of supplier information, designates responsible persons, and prevents the occurrence of information and data leakage.

Win-win Cooperation with Partners

The Company continues to standardize supplier management to protect the legitimate rights and interests of suppliers, as well as to promote a win-win cooperation with partners. To this end, we have formulated relevant regulations such as the Management Measures for Material Supply, Management Measures for Material Purchase, Management Measures for Material Purchase and Supply Resources, Management Measures for the Supervision and Random Check of the Quality of Purchased Materials, and at the same time, our subsidiaries have formulated detailed implementation rules accordingly to help us better cooperate with suppliers.

The Company has established a comprehensive supplier system, including a dynamic management mechanism for admission, selection, review, information feedback and launch. We require all suppliers to be honest and trustworthy, and operate in accordance with the law, and we have organized publicity campaigns for such compliance requirements. We have identified suppliers’ environmental and social risks, and made suppliers’ qualifications in health, safety, and environmental protection as one of the conditions for admission, while at the same time avoid the incorporation of child labor and forced labor into the internal system. In addition, the Company conducts regular qualification reviews and on-site inspections in respect of supplier qualifications, and selects and guides suppliers in accordance of the results.

The Company continues to promote green procurement and carries out the “Green Corporate Action”. The Company also continuously implements the Management Measures for the Green Procurement of Materials (Trial) and Management Standards for the Green Procurement of

Materials, and other rules and regulations, adhering to the procurement of environment-friendly and low-carbon materials, and the use of green logistics and green packaging.

In 2021, we actively established partnerships with various domestic and overseas suppliers to maximize the value of cooperation.

Supplier location		Number of suppliers
Number of suppliers in Mainland China	Number of suppliers in East China	5,387
	Number of suppliers in South China	494
	Number of suppliers in Central China	1,949
	Number of suppliers in North China	1,624
	Number of suppliers in Northwest China	702
	Number of suppliers in Southwest China	739
	Number of suppliers in Northeast China	377
Number of suppliers in the regions other than Mainland China (including Hong Kong, Macao and Taiwan)	Number of suppliers in regions other than Mainland China (including Hong Kong, Macao and Taiwan)	75

Employee Care

The Company adheres to the core values of "being people-oriented, and pursuing good quality, innovation and win-win results", fully safeguards the legitimate rights and interests of employees, and builds a diverse and inclusive corporate culture. We attach great importance to the long-term training of employees, establish a fair and competitive remuneration and welfare system, and build a smooth development platform and promotion channel so as to facilitate mutual development between our employees and the Company.

Safeguarding Employees' Interests

The Company adheres to the philosophy of equality, mutual trust, consultation, and win-win, strictly keeps in line with the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China, Special Provisions on Labor Protection for Female Employees, the Chinese Provisions on the Prohibition of Using Child Labor and other relevant laws and regulations. The Company also establishes a legal employment relationship with each employee to fully safeguard the legitimate rights and interests of employees.

The Company focuses on improving working environments and prohibits forced labor for any reason. The Company also strictly eliminates all inequality and discrimination caused by ethnicity, race, gender, age, family status and other factors, and protects the rights and benefits of female employees during pregnancy, childbirth, and breastfeeding. We respect the customs and culture of ethnic minorities and ensure that employees of ethnic minority can enjoy their traditional festivals. In 2021, the Company did not engage in violations of laws and regulations such as employment of child labor and forced labor, employment discrimination, gender discrimination, and occupational discrimination. If the above situation is found, we will employ strict procedure in accordance with laws and regulations and requirements of the Group.

Employment Performance Index¹

Indicators		2021
Number of employees		69,232
Type of employment	Management personnel	7,702
	Professional technicians	29,473
	Skilled operators	32,057
By gender	Male	59,440

	Female	9,792
By age	35 or younger	7,113
	35-45 years old	19,846
	45-50 years old	18,927
	50 or older	23,346
By region	Mainland	65,205
	In regions other than Mainland China (International, Hong Kong, Macao and Taiwan)	4,027

Employee Turnover Rate Performance Index²

Indicators		2021
Employee turnover rate by gender (%)	Male	0.42
	Female	0.39
Employee turnover rate by age (%)	35 or younger	2.49
	35-45 years old	0.47
	35-45 years old	0.07
	50 or older	0.02
Employee turnover rate by region of work (%)	Mainland	0.44
	In regions other than Mainland China (International, Hong Kong, Macao and Taiwan)	0

1: Statistical data of employee cover the headquarter of the Group, its branches and subsidiaries.

2: Calculation formula for employee turnover rate: turnover in each category this year/the total number of employees in each category at the end of the year

Staff Care and Benefits

The Company has established a scientific and fair remuneration system based on actual operating situation to provide employees with market-competitive remuneration and benefits. In 2021, we revised the Measures for the Performance Appraisal, adjusted and optimized the Company's performance-related appraisal mechanism, further strengthened the incentive and restraint effect of performance appraisal, and stimulated the initiative and work passion of employees.

The Company attaches great importance to employee welfare. In addition to providing social security benefits that meet the standards of countries, regions and overseas where we operate, we also provide employees with health checkups, psychological consultations, corporate annuities, supplementary medical insurance and other benefits. Under this basis, overseas employees are also entitled to additional overseas subsidies (including appropriate pandemic subsidies to encourage overseas employees to dutifully perform their duties under a safe and sound working environment, taking into account various situations such as the risk level of overseas pandemic as well as the bearing capacity of benefits and costs) and extra holiday when they return to their home country.

During the Year, the Company continued to deepen the reform of the three systems, improve the mechanism for increasing and reducing labor costs, increase the proportion of employees' individual contribution of enterprise annuity, narrow the income gap before and after retirement, and ensure the income level of employees after retirement.

Facilitating Employee Development

The Company values the long-term development and continuous training of employees. By proactively implementing talent training strategies in the Company, we constantly improve the promotion system, build multiple channels for job promotions and carry out job competition and competitive selection to stimulate the innovation of talents and the vitality of teams.

We provide employees with a wealth of training resources and carry out special training activities for talents in order to boost the professional capacity and skillset of employees. The Company has established a training center to provide systematic support for organizing diversified training, further standardizing staff training and management so as to help employees grow and develop their career.

The Company continues to promote online learning, combining technology to refine the remote training system. Through using MOOC, video and telephone conference system, Zhongyuan Project's "Tiejun E School" and other mobile terminals to promote learning courses, we have increased the efficiency of remote training. Meanwhile, we have expanded online and offline training methods to carry out more systemic trainings for employees. In 2021, we have trained more than 51,000 personnel through various trainings.

Zhongyuan Petroleum Engineering Company Innovatively Implements Cross-unit Job Rotation Training for Graduates

Zhongyuan Petroleum Engineering Company created a three-tiered onboard training for trainees with directly affiliated units. According to “One Enterprise One Strategy” and “One Person One Strategy”, the Company has established an innovative training method and enriched the training vehicles. This company arranged a 2-month cross-unit job rotation trainee program for fresh graduates, providing a comprehensive and systematic learning on major business of petroleum engineering through lectures on theories, interactive experiences, hands-on practices and on-site trainings. Moreover, the company offered graduates follow-up learning in the Puyang Services Department of Dongying Branch, incorporating activities such as the learning and education of the Party’s history, quality and tradition education in petroleum and petrochemical field as well as career development planning. The company has implemented measures such as a mentorship system for talent cultivation and liaison of talents with leading cadres, guiding graduates to strengthen their conviction, love the party and the enterprise, increase their capacity and make great accomplishments.



▲ Cross-unit job rotation training for graduates

Jingwei Company Held Training Courses on the Enhancement of Rotary Steering Technology

To enhance the service quality of rotary steering technology and facilitate the exploration and development in the aspect of “Increasing Quality, Speed, Efficiency and Production”, in September 2021, Jingwei Company held the first training session on rotary steering technology in Chengdu, Sichuan, providing training on the operation and maintenance of rotary steering tools for the company’s outstanding engineers. To enhance training results, such trainings included sections such as “Theory”, “Workshop Practice” and “Field Operation”, effectively combining theory and practice. Also, an assessment was held at the end of each section to highlight the key points of differentiated training for each participant and ensure each of them have mastered the subject matter. In the final assessment, all participants have achieved 100% (double excellence) in both theory and practical knowledge, meeting the expected goal of the training.



▲ Training courses for improving Rotary Steering Technology

Employee Training Performance Indicators:

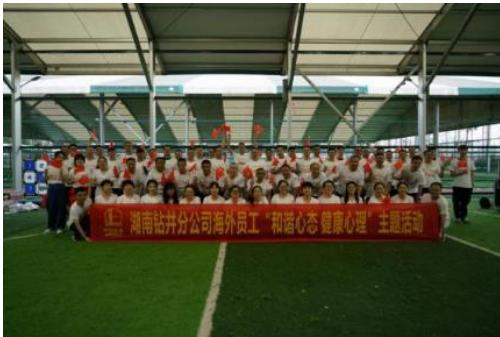
Indicators		2021
Percentage of trainees by gender (%)	Male employees	73.1
	Female employees	69.0
Percentage of trainees by employee level (%)	Management personnel	87.5
	Professional technicians	72.0
	Skilled operators	69.4
Training hours per employee by gender (hours)	Male employees	90.1
	Female employees	62.8
Training duration per employee by employee level (hours)	Management personnel	54.5
	Professional technicians	55.0
	Skilled operators	80.0

Pay attention to Staff Care

Committed on being people-oriented, the Company cares about the physical and mental health of our employees. We have released a cloud-based health consultation service, optimized employees' body check program, deployed AED (automated external defibrillators) equipment in a comprehensive manner and carried out real-time dynamic tracing and testing for high-risk patients with cardiovascular diseases. Meanwhile, we have proactively held relevant trainings and exchange activities on health management and prevention of occupational diseases. We have also set up relaxation rooms and de-stress rooms for our grassroots-level employees, enabling them to relieve stress and channel their emotions.

We have been a strong advocate of work-life balance and strived to create a happy and warm working environment, providing a variety of recreational activities and various sports equipment. In 2021, we held a series of online and online activities, including brisk walking and a singing competition. The activities were eagerly participated by local and overseas employees, boosting the sense of belonging of employees and bringing them closer together.

In face of the pandemic, we implemented national policies resolutely. We have increased our efforts in screening and monitoring, promoted vaccination and strengthened the quarantine measures for returnees from abroad so as to fully defend the bottom line of pandemic prevention and control. In response to the psychological impacts brought by the pandemic, we have provided mental health services to employees and consistently improved the shift systems for overseas employees in order to create a warm and happy corporate culture.



▲ Mental health activities of employees



▲ Decompression room



▲ Health promotion activities



▲ Care for overseas employees during holidays

A Beautiful Society

The Company has always adhered to the concept of "integrity norms, win-win cooperation, and giving back to the local area", and actively fulfilled its corporate social responsibility to empower people in building a beautiful society. We attach great importance on giving back to the society, hence we have become a proactive force in rural revitalization, participated in voluntary activities and conducted emergency rescues, working hand in hand to ensure the well-being of all.

Moreover, we have further enhanced our international collaborations, all of us putting in effort to create a harmonious and stable community relations together. During the Year, the Company donated a total of approximately RMB830,000 to external charities and invested approximately RMB14,960,000 in consolidating the efforts of poverty alleviation.

Creating a Beautiful Society

Rural Revitalization

The Company is active in implementing the development strategy of the Party and the State. By making deployments in rural revitalization, consistently improving relevant measures, increasing efforts in poverty alleviation through consumption and pragmatically solving actual problems faced by those living in rural areas, the Company takes practical actions to consolidate and enhance the achievement of poverty alleviation and assist the modernization of rural areas.

Promote Industry Development of Employees' Place of Origin

Under the influence of COVID-19 pandemic, the apples from Zhashuzhuang Village of Xiaomenjia Town of Penglai City, where our employees were located, became unsaleable. After taking note of this dilemma, the party branch of Sinopec Jiangnan Oil Engineering Company immediately organized a charity sale and sold nearly 8,000 kg of the unsaleable apples. The Company has proactively used various methods to boost the industry development in the employees' place of origin, so that employees can put their mind at ease as they focus on the development and growth in the Company.



▲ Help employees in rural areas solve the problem of unsaleable apple

Volunteer Activities

The Company organizes volunteer activities in various forms consistently, creating a civilized and harmonious living environment and promoting traditional virtues. During the Year, we held activities such as caring empty nesters, cleaning, voluntary blood donation and farming. In face of the epidemic in Yangzhou, we assembled a team of party volunteers for epidemic prevention in the community and made donations to hospitals in hopes of showing our love and care and doing our part in epidemic prevention.

Taking Practical Action for the Public

In 2021, during the construction in Wanjia Village of Lixin Town of Santai County of Mianyang City by the Chongqing Drilling Branch of Southwest Petroleum Engineering Company, its party members assembled a community support team and cleared roads in nearby villages to facilitate travel for local residents. When it was time to harvest in autumn, the company acted swiftly and helped the left-behind elderly to harvest nearly 3,000 kg of corn before the storm hit, avoiding the loss of ripe crops due to natural hazards and preventing the economic loss of nearly RMB5,000 for the farmers.



▲ Voluntary road laying



▲ Help the resident villagers harvest corn

Emergency Rescue

The Company has been enthusiastic in its efforts to give back to the society as it leverages its own skills to participate in emergency rescues for incidents such as fires and car accidents so as to protect the life and property of citizens. Our employees are willing to act bravely. An employee from cementing branch of the Southwest Petroleum Engineering Company bravely rescued a female driver who fell in the lake, and the employee was rewarded with the “Justice and Courage Award” and the honorary name of “Good Citizen of Deyang 2021”, demonstrating the responsibility and the quality of oilfield service workers.

Fire Rescue

On April 30, 2021, construction workers of Southwest Petroleum Engineering Company’s Downhole Operations Branch encountered a fire in the homes of neighboring villagers. The person in charge immediately initiated the emergency response protocol and assembled a fire rescue team. After evacuating trapped personnel, finding the source of fire, extinguishing the fire and eliminating safety hazards, the team ended the fire incident safely and smoothly, protecting the life and property of the people.



▲ Fire Rescue

Road Crash Rescue

In January 2021, 5 employees of Southwest Petroleum Engineering Company's Downhole Operations Branch encountered a traffic accident as they headed towards the construction site. The employees provided immediate help and decisively assembled a team to rescue the injured in the car crash.

In April 2021, as the coiled tubing construction team of Southwest Petroleum Engineering Company's Downhole Operations Branch headed towards the construction site, they came across a broken-down middle-sized truck in the middle of the road. The driver of the team immediately initiated the road emergency protocol and towed the faulty vehicle to an emergency refuge area in a timely manner, eliminating the existing traffic safety hazard.



▲ Car Crash Rescue



▲ Rescue breakdown vehicle

Deepening International Collaborations

Actively responding to the State's "Belt and Road Initiative", the Company has strengthened the strategic partnership with the world's renowned enterprises, increased efforts for our construction services, technology and equipment to go global, and boosted the development of participating countries. The Company proactively undertook corporate social responsibility abroad as well as put in effort in various aspects such as procurement, employment and care for children in the community so as to build harmonious and safe community relationships.

The Ecuador Project

Priority has been given to locals in the recruitment of temporary employees for the Ecuador Project and some personnel were selected to be added to different teams, thus increasing the employment rate of the community. During holidays, the project department would give presents such as candies and stationery to nearby community schools. In December 2021, the local government sent a thank-you letter to the Company to express gratitude for our long-term contribution to the infrastructure and development of the community.



▲ The project department sent small gifts such as candy or stationery to schools for the local community

Appendix: Environmental, Social and Governance Reporting Guide Index table of Hong Kong Stock Exchange

Topics	Topic description	Corresponding report chapters
Governance Structure	<p>A statement from the board containing the following elements:</p> <ul style="list-style-type: none"> (i) a disclosure of the board's oversight of ESG issues; (ii) the board's ESG management approach and strategy, including the process used to evaluate, prioritise and manage material ESG-related issues (including risks to the issuer's businesses); and (iii) how the board reviews progress made against ESG-related goals and targets with an explanation of how they relate to the issuer's businesses. 	Board's Statement
Reporting Principles	<p>A description of, or an explanation on, the application of the following Reporting Principles in the preparation of the ESG report:</p> <p>Materiality: The ESG report should disclose: (i) the process to identify and the criteria for the selection of material ESG factors; (ii) if a stakeholder engagement is conducted, a description of significant stakeholders identified, and the process and results of the issuer's stakeholder engagement.</p> <p>Quantitative: Information on the standards, methodologies, assumptions and/ or calculation tools used, and source of conversion factors used, for the reporting of emissions/energy consumption (where applicable) should be disclosed.</p> <p>Consistency: The issuer should disclose in the ESG report any changes to the methods or KPIs used, or any other relevant factors affecting a meaningful comparison.</p>	About this report-Reporting Principles and Response
Reporting Boundary	A narrative explaining the reporting boundaries of the ESG report and describing the process used to identify which entities or operations are included in the ESG report. If there is a change in the scope, the issuer should explain the difference and reason for the change.	About this report-Scope of the Report
A. Environmental		

Aspect A1: Emissions		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	Green Development
KPI A1.1	The types of emissions and respective emissions data.	Green Development - Responses to Climate Change
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Green Development - Responses to Climate Change
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Green Development - Pollution Prevention and Control
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Green Development - Pollution Prevention and Control
KPI A1.5	Description of emissions target(s) set and steps taken to achieve them.	Green Development - Responses to Climate Change
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	Green Development - Pollution Prevention and Control
Aspect A2: Use of Resources		
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	Green Development - Resource Usage Management
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	Green Development - Resource Usage Management
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Green Development - Resource Usage Management
KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	Green Development -

		Resource Usage Management
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	Green Development - Resource Usage Management
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Not applicable
Aspect A3: The Environment and Natural Resources		
General Disclosure	Policies on minimizing the issuer's significant impacts on the environment and natural resources.	Green Development - Ecological Protection
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Green Development - Resource Usage Management
Aspect A4: Climate Change		
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	Green Development - Responses to Climate Change
KPI A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	Green Development - Responses to Climate Change
B. Social		
Employment and Labour Practices		
Aspect B1: Employment		
General Disclosure	Relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare. Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	Employee Care-Safeguarding Employees' Interests
KPI B1.1	Total workforce by gender, employment type (for example, full- or parttime), age group and geographical region.	Employee Care - Safeguarding Employees' Interests
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	Employee Care - Safeguarding Employees' Interests
Aspect B2: Health and Safety		

General Disclosure	Relating to providing a safe working environment and protecting employees from occupational hazards. Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	Safe Operation- Production Safety Management
KPI B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Safe Operation - Protection of Occupational Health
KPI B2.2	Lost days due to work injury.	Safe Operation – Technology for Strengthening Safety
KPI B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	Safe Operation - Protection of Occupational Health
Aspect B3: Development and Training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	Employee Care - Facilitating Employee Development
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Employee Care - Facilitating Employee Development
KPI B3.2	The average training hours completed per employee by gender and employee category.	Employee Care - Facilitating Employee Development
Aspect B4: Labour Standards		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	Employee Care - Safeguarding Employees' Interests
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	Employee Care - Safeguarding Employees' Interests
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	Employee Care - Safeguarding Employees' Interests
Operating Practices		

Aspect B5: Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain.	Responsible Operation-Win-win Cooperation with Partners
KPI B5.1	Number of suppliers by geographical region.	Responsible Operation - Win-win Cooperation with Partners
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	Responsible Operation Win-win Cooperation with Partners
KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Responsible Operation - Win-win Cooperation with Partners
KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Responsible Operation - Win-win Cooperation with Partners
Aspect B6: Product Responsibility		
General Disclosure	Relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress. Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer	Quality Control-Optimize Management System
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Because the compa'y's business is mainly for oilfield technical services and does not include producing products, this indicator does not applicable.
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	Quality Control - Pursuing Quality Service
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	Responsible Operation - Protection of Intellectual Property Rights

KPI B6.4	Description of quality assurance process and recall procedures.	Because the compa'y's business is mainly for oilfield technical services and does not include producing products, this indicator does not applicable.
KPI B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	Responsible Operation - Information Security Management
Aspect B7: Anti-corruption		
General Disclosure	Relating to bribery, extortion, fraud and money laundering. Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer.	Responsible Operation - Constructing Integrity Culture
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	Responsible Operation - Constructing Integrity Culture
KPI B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	Responsible Operation - Constructing Integrity Culture
KPI B7.3	Description of anti-corruption training provided to directors and staff.	Responsible Operation - Constructing Integrity Culture
Community		
Aspect B8: Community Investment		
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	A Beautiful Society
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	A Beautiful Society -Volunteer Activities
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	A Beautiful Society -Emergency Rescue

