

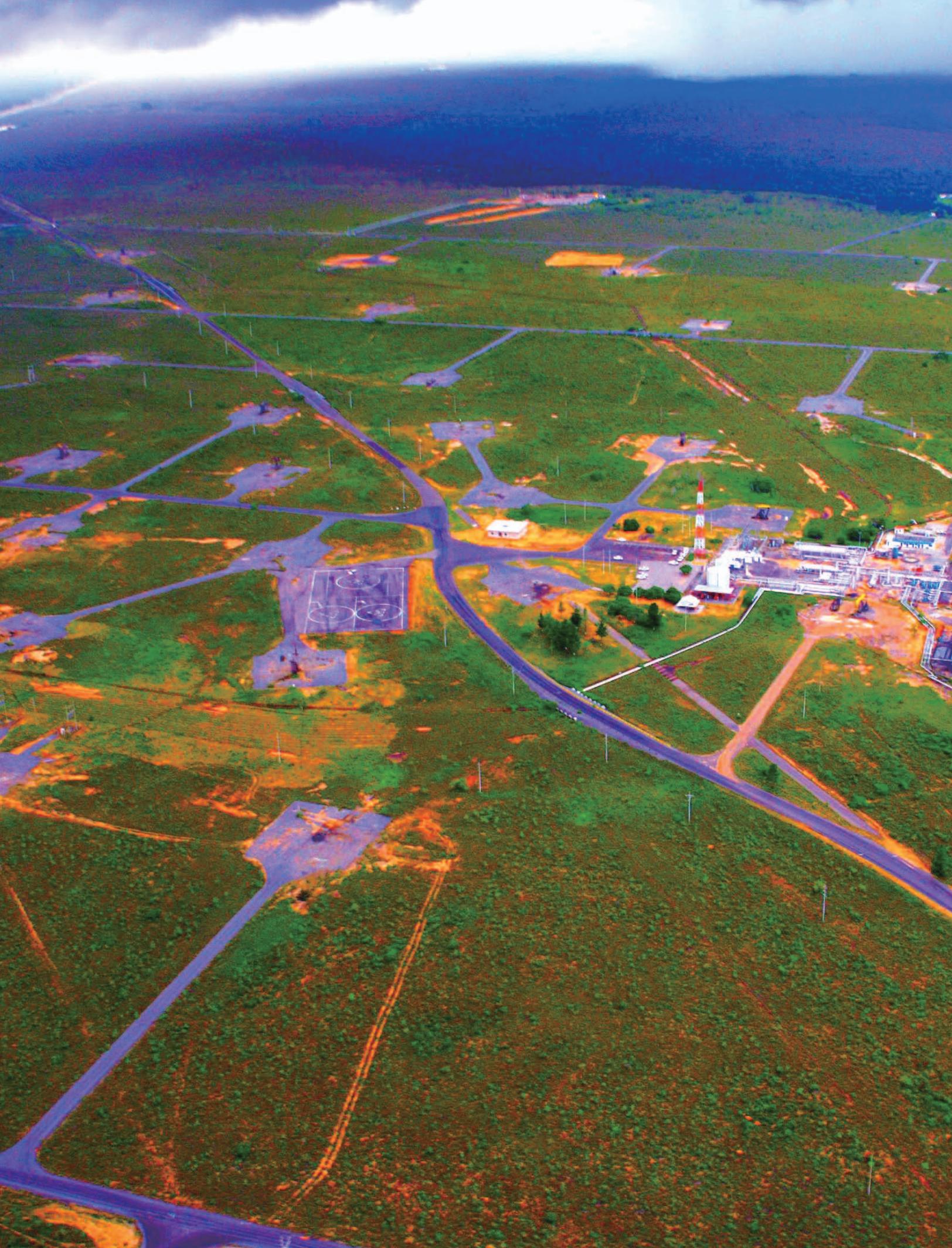


CNPC in Latin America



China National Petroleum Corporation







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Chairman's Message

In recent years, oil and gas cooperation between China and host countries in Latin America has resulted in impressive accomplishments. In October 1993, China National Petroleum Corporation (CNPC) made its entry into Peru by winning an international tender, where it started international oil and gas operations. Over the past two decades, we have witnessed the steady progress of Sino-Latin American oil and gas cooperation. As a witness to this, I have visited Venezuela, Peru and Ecuador many times and established good partnership as well as friendships with local governments and the oil and gas sectors.

In the past two decades, adhering to the international cooperation principle of "*mutually beneficial cooperation for common development*", CNPC has brought China's technologies, managerial expertise, experience and capital to Latin America. With rich experience and proven technologies in oil and gas exploration and development, we have helped host countries address challenges in increasing reserves and production, enhancing recovery efficiency, and tapping ultra-heavy oil reservoirs. Our cooperation projects have yielded remarkable economic and social benefits, winning CNPC the respect and trust of local governments, oil companies and communities.

Latin America is not only one of the world's most important oil-producing regions, it is also home to the Earth's richest and most diverse Amazon rain forest ecosystem. To protect this most precious

natural treasure, we have strictly complied with and enforced local laws, regulations and international standards for environmental protection during our operations, and actively implemented a safe, green and resource-conserving development model, in an effort to minimize our environmental impact. For its outstanding performance in protecting the local rain forest, CNPC holding Andes Petroleum Ecuador Ltd. was granted the Best HSE/Sustainable Development Award from World Oil.

We strictly abide by the labor laws, regulations and policies of host countries and attach great importance to recruiting and cultivating local management, and technical and skilled workers in the oil and gas sector. At our enterprises in Latin American countries, we actively promote local hiring, giving special attention to the career development of local employees. We are pleased to note that local employees now account for more than 88% of our total staff there, who are now playing an increasingly important role in oilfield production and management.

As a responsible investor, CNPC always pays close attention to the sustainable development of the places where we operate. We maintain good communication with all local stakeholders through various means and channels. With their specific needs and requirements in mind, we strive to ensure that our social welfare activities are practical and efficient. Over the past 20 years, we have carried out a series of social welfare and charitable programs

in local communities, covering a wide range of areas including educational and medical facilities, agricultural infrastructure, disaster relief and aid, and environmental protection. Through these programs, we have not only helped improve local living conditions, but also won recognition, trust and praise from local governments and people.

The fruitful oil and gas cooperation between CNPC and our Latin American counterparts would have been impossible without the support and cooperation of local governments, oil companies, communities, our partners and NGOs. CNPC is willing to further contribute to social progress in host countries and Sino-Latin American friendship, and will remain committed to facilitating the sustainable development of Latin America's oil industry through energy cooperation.

Thank you for reading this report, and we appreciate your valuable comments.



Zhou Jiping, Chairman

Interview with the Regional Head



Ye Xiandeng
President of CNPC America Ltd.

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2013 marks the 20th year of CNPC's presence in Latin America. What are your views on the fruitful oil and gas cooperation between CNPC and host countries over the past 20 years?

Latin America is the first region CNPC entered for international oil and gas operation. In 1993, we won the tender to develop Block 7 of Peru's Talara Oilfield. This was the first time a Chinese oil company developed an overseas oilfield by participating in international tenders. In 1995, we obtained the right to develop Block 6 of the same oilfield. The Block 6/7 project in Talara Oilfield marked CNPC's first overseas venture and blazed a trail for Chinese oil companies to explore the international market and participate in overseas oilfield development. In addition, the project allowed CNPC to accumulate experience and foster talents for its future international operations. As a team member at the very beginning, I worked in Peru for six years in charge of geological research. Talara is a marginal oilfield with a development history of more than 100 years. For CNPC, the key to rejuvenating this almost abandoned field was how to apply our sophisticated theories and proven expertise in exploring and developing complex domestic fault-block oilfields in Peru. Fortunately, the project was successful, thanks to our team's painstaking and innovative work. We drilled the deepest oil-producing well, No.13209 in Talara, and a number of

high-yield wells such as No.13218, with a daily output of more than 1,000 barrels. Re-perforating made well No.4226 able to produce at a daily rate of more than 3,000 barrels, the highest yield by reservoir stimulation in Talara's history. Many high-yield oil wells were also successfully drilled in Block 7. In addition, we took measures to restore the shutdown wells and further tapped their oil-producing potential. As a result, the field's oil output grew from 1,600 barrels per day when we took over to more than 7,000 barrels per day, resulting in healthy returns and making it CNPC's first overseas project to realize a return on its investment. Moreover, the project increased local employment and generated considerable tax revenue for the Peruvian government. Our success at Block 6/7 in Talara greatly inspired Peru's oil industry, boosting our confidence and establishing a good corporate image for CNPC.

In retrospect, we can attribute our success in Latin America to the fact that we have always adhered to the principle of "*mutually beneficial cooperation for common development*", to work with host countries in a sincere, lawful, and responsible manner, in compliance with international standards. We introduced China's

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proven technologies and provided comprehensive and integrated solutions for oilfield development and EOR. At Talara's Block 6/7 in Peru, we identified new high-yield pay zones and significantly boosted oil production. At the Caracoles and Intercampo Oilfields in Venezuela, in addition to unlocking the potential of old oil wells, we drilled a series of high-yield wells by making ingenious and innovative use of new techniques such as horizontal drilling and electrical submersible pumping systems, thereby successfully increasing the project's daily oil production from 4,900 barrels to 40,000 barrels, an impressive eight-fold jump. CNPC's early projects in Latin America not only achieved remarkable results, but also helped the company establish relationships based on mutual trust with the governments, oil sector and relevant companies of the host countries, which earned up great praise and recognition, laying a solid foundation for winning the bids as well as the smooth operation of the Andes project in Ecuador, Block 1AB/8 project in Peru, and the MPE3 project and Block Junin 4 project in Venezuela.

Over the past 20 years, CNPC has been steadily expanding its cooperation scale in Latin America, with

both oil reserves and production in the cooperation zones greatly increased, laying a substantial foundation for the sustainable growth of the company's oil and gas operations in the region. In the meantime, the upstream boom has energetically driven the company's business in oilfield services, export of petroleum materials and equipment, and oil trading continue to grow in both scale and scope, making CNPC an influential comprehensive service provider in Latin America, with our integrated operations brought into full play.

As a responsible investor, we pay close attention to the demands of all stakeholders in the host countries, and always do our best to help local communities. Over the years, we have worked with our partners to invest extensively in public welfare projects, engage in poverty alleviation and disaster relief efforts, and care for vulnerable groups. We abide by local laws, respect local culture and customs, and attach great importance to environmental protection where we operate. In our joint ventures, we promote cultural diversity and multicultural integration, care for the well-being of our employees, and steadfastly implement the concept of win-win development with our Latin American partners.

In recent years, some Latin American host countries have adjusted their energy policies, how has CNPC America adapted to the changes in the investment environment in order to achieve sustainable development?

Since 2006, some Latin American countries have initiated a new round of nationalization in the oil and gas sector. In response to the changing operating environment, we have endeavored to gain a profound understanding of the new policies by communicating with relevant government departments, in order to better prepare ourselves for the shifting role and explore new corporate management mechanisms with our partners. In Venezuela, for example, we set up a senior steering committee, a board of directors of the joint venture, and a professional committee in conjunction with PDVSA, to participate in the management of the joint venture. The Chinese employees give full play to their technical and managerial expertise and maintain active communication with local staff to help solve operational and technical problems. Our contributions and efforts have effectively facilitated the operation of the joint venture and won full approval from the Venezuelan side.

After the restructuring of the Venezuelan project, the joint venture adopted Spanish as its working language.

In order to ensure smooth and efficient communication between the Chinese and Venezuelan sides of the joint venture, we have constantly reinforced the training of our Chinese staff in language and business skills. Those competent in communication, coordination and business operation are selected to work at the joint venture, not only facilitating the development of the joint venture, but also serving as a bridge between the Chinese team, the joint venture and the major shareholders. Efforts are also made to drive home the point that only through cooperation can we achieve win-win outcomes. As a Chinese saying goes, "A full and great river makes a full creek", which indicates that only if the joint venture develops, can the shareholders benefit from it. In addition, we attach great importance to employee localization. In our Andes project in Ecuador and the Block 6/7 project in Peru, local employees account for more than 90% of the total staff. By promoting multicultural integration, we pursue common development in a harmonious way.

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How does CNPC America manage to maintain its excellent HSE record?

As we know, Latin America is a mature market for oil and gas investments. However, most of the oil and gas fields in the region are located in places where the natural environment is relatively vulnerable, especially in rainforest areas. Petroleum extraction may exert a negative impact on the local flora, fauna and indigenous people. The governments of host countries and the local people impose stringent requirements on the environmental friendliness of oil operations, with harsh punishments meted out to violators of relevant laws and regulations. Since the day we entered Latin America, we have been paying close attention to our HSE work. By integrating the HSE laws and regulations of host countries, international standards, and CNPC's HSE concept and practices, we continuously improve our HSE system and enhance our HSE culture, with impressive performance being achieved.

Thanks to the concerted efforts of all our staff, we have maintained an excellent HSE record in the local oil and gas operations, without any major accident reported for 19 consecutive years. The MPE3 project in Venezuela set the record for 20 million man-hours with no personal safety accident or environmental pollution accident. In Ecuador, we strive to build a "harmonious oil zone" in the Andes project, and reached permanent peace agreements with the local southern and northern communities respectively. Our efforts won the "Exemplar Company" award from the local government as well as the "Best Foreign Company in HSE and Community Undertakings" award from Ecuador's Ministry of Energy and Mining and the Ministry of National Defense. Our projects in Peru actively launch "Green Development" and "Green Community" activities, which are highly commended by the Peruvian government and local communities. CNPC's oilfield service companies have also received many rewards from the local governments and NOCs, such as the title of "Green Drilling Crew" and awards for safe and quality operation.

The excellent HSE record is attributed to our adherence to CNPC's "green development" philosophy and safety culture, strict enforcement of HSE regulations and local requirements, and continuous HSE training and education. Taking into account the specific HSE laws, regulations and requirements of the countries we operate in, we keep intensifying our HSE management to implement an accountability system for safety and environmental protection and standardize our production and operating procedures. In CNPC operated projects, our HSE efforts are mainly focused on safety inspection and monitoring and environmental protection during oil and gas production and well drilling; whereas for non-CNPC operated projects, efforts are mainly made to check the implementation of HSE measures. To nip any danger in the bud, we emphasize the monitoring and control of key HSE links, and carry out inspections on a regular basis to spot hidden risks. Corrective measures are formulated to ensure all hidden risks are dealt with in a timely manner.

Employees' health is one of our top concerns. We actively implement healthcare programs for employees, such as strengthening relevant measures in a targeted manner to prevent tropical infectious diseases from threatening our employees' health and always making timely treatment available. Vaccinations are regularly provided to employees against diseases including yellow fever, and information on local infectious diseases and preventive measures is released periodically.

How does CNPC America fulfill its corporate social responsibility? What is your focus in public welfare activities? Have these activities earned CNPC the understanding and recognition of local communities?

In our international operations, CNPC always upholds the mission of “Caring for energy, Caring for you” and adheres to the principle of “mutually beneficial cooperation for common development”. We actively engage in public welfare undertakings in host countries, and take the initiative to boost the local economy and benefit local people. Since 1993, CNPC has been conducting public welfare programs in Latin America in a wide range of areas, including funding for education, poverty alleviation, agriculture, healthcare, public facilities, culture and sports, and environmental protection. In 2010, Venezuela was hit by the worst flood in 50 years, with nearly 130,000 people seriously affected. CNPC promptly donated USD 300,000 to the Venezuelan government for flood relief. Temir Porras, Vice Foreign Minister of Venezuela, said that the donation reflected the bond between the two countries and the two NOCs. Employees of the Junin 4 project have donated stationery to impoverished local students for many years. The joint ventures of the MPE3 project, the Zumano project and the Caracoles and Intercampo project in Venezuela have actively participated in the country’s housing program, building nearly 100 dwellings in five municipal areas from 2011 to 2012, benefiting more than 10,000 local people. In the past few years, the Zumano project has continuously donated clothing, electrical appliances and other materials to local schools to improve the students’ learning and living conditions. In 2007, the cassava processing plant, in which the Caracoles and Intercampo project invested USD 240,000,

became Venezuela’s third largest one in terms of production. The project company was praised by the local government and PDVSA as “a role model in HSE and public welfare undertakings”.

Our Andes project in Ecuador is located in a tropical rain forest, which is home to some indigenous people lacking necessary infrastructure. Since our takeover in 2006, the project company and its partners have launched a series of assistance programs for local communities, including helping to build community hospitals and schools, providing medical assistance and educational training. These programs have greatly facilitated the harmonious relationship between the company and local communities, and brought both economic and social benefits.

In Peru, the Block 6/7 project company has offered assistance in building a number of schools, and also helped some local schools by renovating or constructing classrooms and computer rooms, hiring teachers, donating books and stationery, providing scholarships, and purchasing desks and chairs. The Block 1AB/8 project company has entered into an agreement with the Loreto provincial government to build a demonstration school in the rain forest region and provide teaching programs, to ensure that all local children over five years old have access to education. In addition, it provided financial aid to students from impoverished indigenous families.

In 2011, our project company in Costa Rica participated in charity events organized by the Diplomats’ Spouses Association, making donations to local people.

Over the years, our dedication to public welfare undertakings in host countries in Latin America has facilitated local social development and promoted harmonious coexistence between the oil zones and local communities, winning us widespread recognition and praise from local stakeholders, as well as a favorable environment for the smooth operation of CNPC’s overseas oil and gas cooperation projects.

Introduction

Although they are far apart, China and Latin America enjoy a long history of friendly exchanges. Legend has it that some Chinese monks sailed to Mexico as early as the 5th century AD. And according to documentary records, the maritime Silk Route, in the Wan Li period of the Ming Dynasty (late 16th century) greatly facilitated communication and trade between the Chinese and Latin American peoples.

Today, cooperation between China and Latin America is in full swing, exemplified by frequent bilateral meetings and communication between state leaders and heads of government. So far, China has established strategic partnerships with Venezuela, Brazil, Mexico, Argentina and Peru respectively. In the past decade, the Sino-Latin American relationship has entered a new period of rapid growth, with comprehensive, wide-ranging and multilateral cooperation achievements made in finance, energy, infrastructure, high-tech and agriculture.

Since 2001, the trade volume between China and Latin American countries has seen an average annual growth rate of more than 30%, reaching USD 261.24 billion in 2012. China has signed free trade agreements with Chile, Peru and Costa Rica. With its non-financial investment in Latin America exceeding USD 54 billion, China has become the region's second largest trading partner and a major investor.

At a similar stage of development and with highly complementary industries, China and Latin America have vast potential for cooperation. Chinese companies have entered into numerous cooperation agreements with the governments of Ecuador and Venezuela in fields such as energy, infrastructure

and telecommunication, which not only brought new investment opportunities to Chinese companies but also helped boost local socioeconomic development. This ever-deepening and expanding mutually beneficial cooperation has pioneered a new model of "South-South Cooperation".

Latin America is a true cradle of ancient civilization. The Indians are the pioneer and creator of the ancient civilizations of the Americas, and contributed greatly to the development of human culture by rearing crops and livestock. With their brilliant wisdom, the Ancient Indians created the splendid Mayan Civilization, the Aztec Civilization and the Inca Civilization. With the unfolding of history, Latin America has become a hub for various ethnic and racial groups, where Asian, European and local culture experienced convergence and fusion, culminating in a rich, diverse and unique Latin American culture.

As an envoy of friendship, CNPC entered this beautiful land in 1993, seeking cooperation opportunities with Latin American counterparts. Over the past 20 years, we have built sincere and trustworthy relationships with local industrial players. Today, CNPC is present in Venezuela, Ecuador, Peru, Costa Rica, Colombia and Cuba, cooperating with our partners in oil and gas exploration and development. In particular, we share our experience and expertise in exploring and tapping complex hydrocarbon reservoirs, boosting reserves and the output of mature fields, ultra-heavy oil extraction, and horizontal well drilling. Our excellent performance in management, technology, HSE and social responsibility has been highly recognized by the governments, enterprises, partners and communities of host countries.



Creating a Multicultural Cooperation Atmosphere





Yin Juntai
Vice President of CNPC America Ltd.

Employees are CNPC's most valuable asset, and the retention of local talents is fundamental to the company's sustainable development. To this end, CNPC America strives to create a working environment that advocates appreciation and cooperation, in order to enable excellent teamwork among employees of different nationalities.

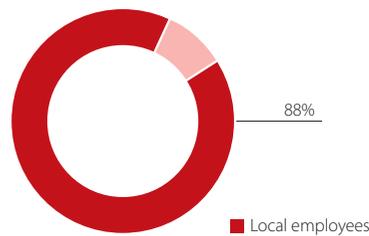
To give local employees a better understanding of Chinese culture, we invited the dean of the Confucius Institute at the University of San Francisco de Quito, an old China hand who once studied in China, to give lectures to our local staff on the essence of Chinese culture. Every year, we send selected local managers, technicians and workers to China for training and visiting and to experience Chinese culture. In addition, various activities are held, including showcasing Chinese folk art pieces and ornaments, to introduce Chinese traditional customs to local employees.

Andes Petroleum Ecuador Ltd. has established a multinational workforce to sustain the company's long-term and stable growth. Since taking over the project in 2006, CNPC has created 453 job opportunities for the local community, with the number of local employees registering an annual growth rate of 14%, thereby effectively promoting local employment and social stability. Local employees now account for 95% of the company's payroll, with their proportion in managerial, technical and operational positions reaching 95%, 90% and 100% respectively. So far, nearly 100 local employees have been promoted, achieving personal growth along with the development of the company. Among them, 53 regular employees or coordinators were promoted to the position of section chief; 11 section chiefs were promoted to department head; 21 were promoted to deputy manager; seven were promoted to manager; and five were promoted to consultant to company president.



The company complies with the labor policies and employment security laws and regulations of the host countries. In accordance with unified human resource policies and standards, we are committed to creating a working environment that is inclusive, equal, trusting and cooperative, and building a platform for our employees' career development.

We actively promote employee localization and have built a diversified talent pool of different nationalities with various cultural and religious backgrounds. As of 2012, CNPC America's local employee ratio exceeded 88%.



CNPC's project companies in Latin America attach great importance to the cultivation of local employees, and facilitate their career development by establishing a tailored promotion mechanism and offering skill training programs. In order to help local employees quickly grasp oil production equipment operation and maintenance skills, CNPC's Andes

project in Ecuador and Block 1AB/8 project in Peru organized training programs for the certification of electricians, machinists and other positions. They also provided indigenous people living in surrounding areas with permanent or temporary employment, enabling them to gain related skills in oilfield production and participate in production activities. In order to conquer the language barrier and increase mutual understanding, the Chinese employees put a lot of efforts into mastering Spanish, while many local employees take time to learn Chinese. Currently, in CNPC America Ltd., 40% of the Chinese employees can speak both English and Spanish when communicating with local employees at work. In 2012, two local employees were awarded as outstanding employees in CNPC's overseas cooperation.

By organizing various cultural and sports activities, the company helps to enrich employees' spare time and promote multicultural integration. For instance, we hold employee birthday parties every month, and organize outward bound training, sports meetings and a Christmas party every year, which have strengthened mutual trust and understanding among employees, and allowed them to feel the harmonious atmosphere of CNPC as a caring international employer.



Outstanding local employees

Vicente de la Rosa is a CNPC employee of Peruvian nationality. Joining CNPC in 1995, he now serves as the deputy manager of the exploration and development department of Block 6/7 project in Peru, mainly in charge of reservoir engineering. With outstanding technical skills and experience, he enjoys a good reputation among employees.

Vicente boasts rich technical knowledge and experience. In view of the large number of completed wells at Block 6/7, he proposed measures targeted at restoring shut-in wells and boosting the output of old wells. Under his leadership, more than 600 long shut-in wells were successfully restored to obtain a cumulative output of 3.19 million barrels, and stimulation measures were taken at 244 old wells to yield an additional 1.89 million barrels. In particular, well J74 saw an increased daily output of 505 barrels after it was stimulated, the best result achieved in more than 10 years at Block 6/7. In 2012, Vicente was awarded as one of CNPC's outstanding overseas employees in recognition of the positive role he played in rejuvenating old wells and maintaining stable oil output at Block 6/7.



Luis Rojas (left) is a veteran CNPC employee of Venezuelan nationality. Having worked for CNPC for more than 10 years, he now serves as a consultant to CNPC America's exploration and development department, mainly responsible for technical support and coordination.

Relying on his abundant industrial expertise and excellent coordination skills, he has become a valuable communication link between CNPC and the local government. In addition, he also actively works with CNPC America's board of directors in examining exploration and development plans, revising business programs, and auditing budgets, involving production capacity expansion for the MPE3 project, maintenance of ground processing equipment, comprehensive study of the Zumano project, and 3D seismic data acquisition for the Junin 4 project. In 2012, Luis was awarded as CNPC's outstanding overseas employee to praise his contributions to the company over the years.





“I’ve been working for the company for 18 years. Here everybody respects each other and everyone has a high sense of responsibility. I love its wonderful cultural environment. The company also encourages us by raising our salaries and offering training programs. Currently, the company is about to enter a new development stage, and I wish it would get better and better.”

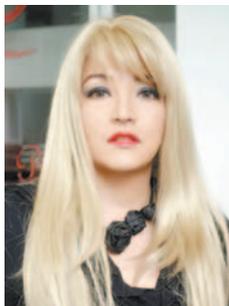
Luis Wong
Employee, Block 6/7 project company in Peru



“I feel honored and lucky to be part of CNPC and have been working for the company for more than seven years. Here, Chinese and Venezuelan employees have a wonderful time working together, becoming “good buddies” with each other. Over the past seven years, I’ve learned a lot of professional skills, as well as good qualities such as self-discipline and dedication to work. The experience enriched me and instilled in me a great sense of belonging. As a veteran of the local company, I intend to improve myself in the coming days, and I’m eager to reach higher goals along with the company.”



Wonder Cipriani
Production analyst, MPE3 project company in Venezuela



“I had worked for quite a few international companies. I think AndesPetro has done a great job in cultural fusion. Only when you keep learning about the local culture, values and way of thinking can you make cross-culture communication more effective. AndesPetro has demonstrated persistence and patience in understanding Ecuador. I believe the Andes project will surely have a better future with the joint efforts of both the Chinese and Ecuadorian sides.”

Maria Soledad Moreno
Legal counsel to the President, Andes Petroleum Ecuador Ltd.





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- 1. Sports meeting
- 2. Birthday party
- 3. Christmas party
- 4. Outward bound activities



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Pursuing HSE Excellence





Zhang Xing
Vice President of CNPC America Ltd.
President of Andes Petroleum Ecuador Ltd.

The oil zone of AndesPetro is located in the heartland of the Amazon rain forest, a highly sensitive spot on the world's eco-protection map, with a large portion of the oilfield situated in the Ecuadorian national forest reserve. The unique geographic position and diverse biological environment has made the project a center of attention among environmentalists around the world.

From the perspectives of managers, responsible persons and contractors, AndesPetro has planned and formulated a systematic HSE management mechanism whereby HSE duties are specifically designated and interlinked, with the notion of HSE firmly implanted in employees' minds. First, company managers strengthen their leadership by regularly attending HSE training programs, performing emergency drills and sharing HSE experiences. Second, the responsible person implements a line responsibility system for safety and environmental protection by signing an accountability letter with the relevant person in charge to clarify the HSE duties for each specific post. And third, contractors shall be encouraged to share their experiences related to HSE in localized operations.

Apart from HSE publicity and education, we effectively promote HSE management by monitoring its execution to prevent hidden risks. The company conducts strict inspections of and encourages reporting of hidden hazards and performs close-loop management. We developed an online hazardous behavior/status reporting system, and track the correction status every two weeks and offer incentives to those who report hidden dangers, including a monthly "best report" award. The company has thereby established a professional supervision team that is knowledgeable about safety and management and capable of handling emergencies. We also designate local managerial personnel in charge of security, medical service, environmental protection and operational safety at the work site, with dedicated HSE personnel now accounting for more than 8% of the workforce.

In addition, we strictly abide by international standards to ensure the intrinsic safety of equipment, and focus our EHS management

on strengthening employee's safety awareness and building system management targeted at safe behavior. We persist in system maintenance and compliance audits. In 2004, the company successfully acquired environmental management system certification for its oil depot, and acquired ISO 14001 certification in 2010. Using a risk matrix approach to rank EHS risks, we prioritize EHS interested parties in view of the analysis, in order to determine the focus of our EHS efforts. To ensure the safety of each and every employee, the company performs post risk identification and occupational health hazard identification as well as risk assessment, to inform employees in an open and transparent manner of their job risks. We have also established a training center to develop safety training programs, with the annual average training time for each on-site employee (including contractors) totaling 34.5 hours. We also use a GIS geographic information system to effectively monitor the environmental impact of our exploration and development activities, and provide support to decision-making in location selection, positioning of pipeline leaks, wetland analysis, analysis and monitoring of nature reserves, and analysis of the traffic network.

Thanks to stringent and concrete safety and environmental protection work at the Andes project, there have been no deaths caused by oil production accidents or any environmental pollution accidents. Compared with the recordable incident rate per million work hours conducted by the U.S. Occupational Safety and Health Administration (OSHA) in the oil and gas sector, the Andes project did an excellent job in its OSH performance. The company has won a number of awards from the local government, the National Assembly of Republic of Ecuador and relevant institutions, such as the acknowledgment of its Corporate Excellence by the Ecuadorian Journalists Confederation. The company has also won awards for environmental protection and management innovation from BIZZ and World Oil & Gas, as well as an award for Excellent Work in Technology Transfer and Development of the Oil Industry in Ecuador from the Ecuadorian Ministry of Non-renewable Natural Resources and SPE Ecuador Section.

CNPC's nine principles for HSE management in global oil and gas operations are: HSE should be given priority when making any decision; Safety is a prerequisite to employment; Employees must be fully conversant with HSE compliance; Managers should take responsibility for HSE in their business scope; Managers must be engaged in HSE reviews; Employees must be engaged in post-hazard identification and risk control; Potential risks must be dealt with promptly; Accidents must be reported, analyzed and dealt with promptly; Unified HSE standards should be applied in contractor management.

Adhering to the concept of "putting the environment, safety, quality and people first", we protect the long-term interests of both the host countries and the company, by strictly complying with local environmental laws and regulations, attaching great importance to operational safety and environmental protection, and consciously being subject to the supervision and guidance of the local authorities. The focus of HSE management is procedural management and nurturing awareness targeted at promoting employees' safety awareness and behavior. Accordingly, by establishing a comprehensive HSE management system, the company and its partners strive to achieve the goal of "zero injuries, zero pollution and zero accidents". The company incorporates the essence of HSE as a key part of its culture, to foster the concept, system and behavior of a safety culture. Furthermore, we take incentive measures to encourage reporting of

hidden dangers in a comprehensive and truthful manner, organize HSE audits of all project companies on a regular basis, and conduct inspections of key production posts aimed at spotting potential problems at sites.

The Amazon region of Latin America is home to the world's largest tropical rain forest, where many primitive tribes dwell. The unique geographic position and diverse biological environment has made the area a center of attention of international environmental protection organizations. Our Andes project in Ecuador and Block 1AB/8 project in Peru are both situated in the heartland of the Amazon rain forests, while the Intercampo Oilfield project in Venezuela is located on Maracaibo Lake, which are all environmentally sensitive areas. To meet the strict environmental requirements for oilfield operations, we developed an HSE management system and methods tailored for projects in Latin America. By establishing an HSE management committee and a mechanism to designate an HSE responsible person and event coordinator for each project, we ensured timely and accurate reporting of HSE information and made sure all major crisis events are dealt with in a prompt and reasonable manner. Over the past 20 years, we have strictly complied with relevant international standards and criterion in our production and operations, with no major HSE accident occurring. The MPE3 project in Venezuela set a record of 20 million man-hours with no significant personal safety accident or environmental pollution accident. Well drilling and workover crews of CNPC's Greatwall Drilling Company and Bohai Drilling Engineering Company Ltd. have won



multiple awards and accolades from the Venezuelan Ministry of Environment and Natural Resources and PDVSA, including the title of “Green Drilling Crew” and production safety medals.

In 1998 when CNPC took over Venezuela’s Intercampo Oilfield on Maracaibo Lake, we were faced with considerable safety and environmental risks due to the thick mud on the lakebed with densely distributed cables and pipelines, as well as a multiplicity of production equipment on the lake surface. A detail-focused prevention method was adopted to identify major risks in each procedure, link and post, and effective risk preventive measures were implemented. For well drilling and workover operations on the lake, we divided the operational procedures into five key links: well site design, platform construction, drilling and workover vessel relocation, drilling and workover operation, and oil production. Meanwhile, potential risks in each link were analyzed and assessed. The company has thereby compiled with and enforced relevant operational procedures and regulations, effectively preventing the occurrence of accidents. For instance, to avoid blowouts, the company specified and strictly enforced the operating procedures for every step including equipment relocation, well drilling and well logging. Such HSE management and control measures have effectively prevented operational accidents, as

well as industrial waste pollution, thus helping keep the water of the Maracaibo Lake crystal-clear.

At Block 1AB/8 in Peru, oilfield produced wastewater was discharged into the Amazon water system only after preliminary treatment in the early development stage. After joining the project in 2003, CNPC made a proposal to introduce a three-tier wastewater treatment system to upgrade the original one, in order to improve treatment and reduce the oilfield’s environmental impact. Together with our partners, we launched a package of projects including wastewater treatment, water injection and power/fuel supply. Three residual oil power plants, three diesel topping plants and 12 water treatment facilities have been built, enabling the combination of secondary oil recovery and wastewater recycling. As such, all the produced water was re-injected into the underground formations after being properly treated. This has completely changed the mode of production prevailing in the local area for over 30 years and achieved clean production. In addition, Block 1AB/8 project also conducts dynamic monitoring of the domestic water, surface water, air quality, natural gas emission, soil quality and noise, to ensure that prompt countermeasures can be taken to protect the natural environment of the rain forest once abnormalities are spotted.



Surrounding environment of Block 1AB/8 in Peru before (left) and after restoration (right)



After CNPC took over the project, a major change was the heightened awareness of safety and environmental protection and improved compliance with a safety culture. Another obvious change has been stricter adherence to the laws of Ecuador in environmental protection, and occupational health and safety. For instance, the company launched a self-financed campaign to strengthen the treatment of solid and liquid waste. Now we can claim with confidence that AndesPetro is the best oil company in Ecuador, particularly in terms of environmental protection, safety and occupational health. In addition, we also boast top operating quality and strong technical competence.

Alfonso Carrera

Safety director, T Zone of Andes Petroleum Ecuador Ltd.



Located in the hinterland of the Amazon rain forest, over half of our oil zones in Ecuador overlap with national reserves. The Andes project gives priority to environmental management in business development and actively implements comprehensive wastewater treatment to recycle all the produced water. Highlighting the role of the EHS department, AndesPetro has formulated and enforced strict safety and environmental protection rules and procedures in accordance with the highest standards of the industry. When taking over the project, it developed a three-year plan aimed at addressing rain forest pollution. The president of AndesPetro assumes direct responsibility for safety and environmental protection work by regular attending HSE training, emergency drills and experience sharing sessions. In terms of risk management, the project company adopts a “work licensing system” as one of its most important management tools, and established an on-line work licensing system which clearly defines the authority and duties of the responsible person at each link. It has also developed an on-line hazardous behavior/status reporting system to track hidden dangers and make prompt corrections. In terms of team building, the company has established a professional supervisory team to equip the work site with dedicated managerial personnel, accounting for over 8% of the total workforce, which is in charge of security, medical services, environmental protection and operational safety. Moreover, the company has established a training center and requires all employees, contractors and visitors to receive EHS training before entering the work site, with the training time for on-site employees and contractors averaging 34.5 hours annually. In oil production, helicopters are used to transport drilling rigs and other equipment in order to avoid the destruction of vegetation; drilling cuttings and mud undergo bio-safety

treatment before burial; all formation water produced in the oil zone is re-injected underground, while the associated gas is used to generate electricity. After the completion of an operation, efforts are made to restore the ground surface as soon as possible. Meanwhile, a GIS geographic information system is used to monitor the impact of exploration and development activities on the environment, and offer support to decision-making in such aspects as location selection, pinpointing of pipe leaks, wetland analysis, analysis and monitoring of nature reserves, and analysis of the traffic network.

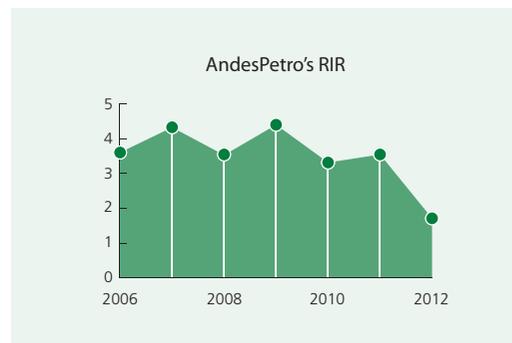
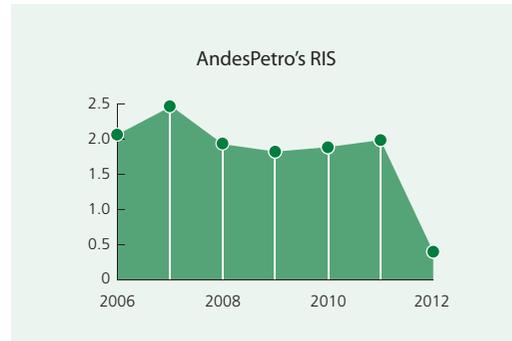
Aiming to maximize the recycling of resources, AndesPetro has invested in establishing a comprehensive treatment center. Organic waste from the oilfield is buried in sawdust, in order to convert it into organic fertilizer for vegetation restoration. Inorganic waste is sorted and processed. For example, plastic waste is crushed and sent to the waste recycling center approved by the Ecuadorian government for further processing and treatment. The remaining wood from packaging is donated to the local



“Best HSE/Sustainable Development Award” granted by World Oil Magazine to Andes Petroleum Ecuador Ltd.

community as fuel. In addition, oil and water are fractionally precipitated, with the resultant precipitate further treated for biosafety through the use of chemicals (a phased treatment process that usually lasts for six months), and then disposed of as harmless soil when all relevant chemical indicators reach the standard level. In addition, the company has also built seedling nurseries in the surrounding communities in order to provide seedlings for vegetation restoration.

Through comprehensive management and the implementation of multiple measures, AndesPetro achieved impressive RIS and RIR records at the industrially advanced level in the region, winning the title of "Best HSE/Sustainable Development Award" from the World Oil Magazine, and was nominated for the "Environmental World Award" by the Institute of Energy in the United Kingdom. Besides, the Ecuadorian Ministry of Environment and Natural Resources also spoke highly of the company's commitment to environmental protection and its advanced technology of bio-oxidation treatment of contaminated soil. It has won numerous environmental protection and management innovation awards from prominent organizations such as BIZZ and World Oil & Gas, as well as the award for Excellent Work in Technology Transfer and Development Oil Industry in Ecuador from the Ecuadorian Ministry of Non-renewable Natural Resources and SPE Ecuador Section.



Promote Clean Production to Achieve Green Development

Block 6 of Talara Oilfield is located at Lobitos Beach, an ideal surfing spot on the northern coast of Peru, which was designated in 2009 as an official site for international surfing competitions. Therefore, the local government has put a high premium on the surrounding natural environment. To meet the stringent local environmental protection requirements, CNPC's Block 6/7 project company strengthened its environmental protection measures for each and every step of its oil production process.

For instance, the project has invested in transforming its gas gathering and transportation system, with the aim of gathering associated gas produced during the oil pumping operations. It has also adopted the method of laying impermeable membranes at the bottom of mud pools to prevent slurry oil waste from seeping into the soil, with the gathered waste oil removed and processed collectively after well completion. Due to the fact that

Block 6/7 had been exploited for over 140 years, more than half of the producing wells rely on swabbing to produce oil. In oil pumping operations, the company has strictly required its contractors to take effective measures to prevent oil from spilling, overflowing, dripping or leaking so as to achieve clean production. Another fact is that waste oil buried underground in its early development stage had started to emerge out of the ground, exerting a negative impact on the ground environment. In order to clean up the oil contamination, the company hired local contractors to clear the oily sludge off the well sites and transport it to designated spots for further treatment, thereby solving the leftover problem and meeting the environmental protection requirements imposed by the local government. The company also organizes employees to go to the beach to clean up litter on a regular basis, in an effort to nurture a pollution-free environment for surfing fans.

Winning Trust with Technology

 **PDVSA** | LABORATORIO
PETROLERA
SINOVENSA





Gong Bencai

Vice President of CNPC America Ltd.
President of SAPET Development Peru Inc.

Block 6/7 of the Talara Oilfield in Peru are both old fields with a development history of more than 100 years, where a total of five oil companies once operated with all kinds of technologies applied. Some experts claimed that the oil-producing potential of the two blocks had been exhausted. Since CNPC became the operator of the blocks, its proven technologies for releasing the potential of mature oilfields have been given full play, with impressive results achieved.

First, measures were taken to rebuild long shut-in wells. When the Chinese side took over Block 6 and Block 7, there were around 5,000 wells drilled, with only 509, or 1/10 of the total, producing oil. Most of the remaining wells had long been shut in and covered by weeds and sands. With a daily oil output of only 1,700 barrels, or an average per well yield of about three barrels, the oilfield was about to be abandoned. After conducting rounds of discussion and in-depth research, CNPC's technical team was confident of rebuilding the shut-in wells and rejuvenating the moribund oilfield.

To this end, the technical team has drawn on China's sophisticated theories on continental facies fault-blocks and leveraged CNPC's technical edge in integrated exploration and development to study reservoir distribution pattern, the ratio of total oil produced to OOIP, and the distribution law of remaining oil based on geophysical, well logging and cutting logging data. Efforts were focused on rebuilding those long shut-in wells located in favorable oil zones to ensure the success rate. Meanwhile, timely monitoring was made on the production dynamics of successfully restored wells in order to provide the basis for further stimulation measures to maximize their production capacity.

Facts proved that our measures worked. Over the past 20 years, 736 long shut-in wells have been restored in Block 6/7, 17.42% of the total number of shut-in wells, achieving an additional oil output of 3.30 million barrels, 14.36% of the blocks' total production achieved since CNPC's takeover. The restoration of the long shut-in wells has made up for the old wells' production decline, and effectively helped to maintain stable production and achieve production growth.

Second, efforts were intensified to activate the oil-producing potential of old wells. In view of the fact that Block 6/7 host a multiplicity of old wells, stimulation measures were widely implemented. Priority was given to favorable pay zones and an in-depth study on the distribution pattern of remaining oil was made to prioritize candidate wells. For different oil-bearing formations, conventional measures were taken such as re-perforating, acidizing and fracturing. In addition, we also actively introduced new output-boosting approaches. At Block 6/7, attention was previously attached to major oil-bearing layers, with relatively shallow oil layers usually being ignored and remaining un-cemented. In 2009, by introducing secondary cementing technology, these shallow reservoirs have been optimally stimulated, resulting in remarkable production growth. Particularly for well J74, its daily additional oil output reached 505 barrels at early stage since its reworking in 2011, the best result achieved in the past decade. In 2012, we introduced China's advanced "secondary deflection fracturing" technology to Talara and conducted pilot tests at five wells, with varying degrees of success seen in boosting oil output. The success of this technology was significant for oil producing potential release in Block 6/7 and even the entire Talara Oilfield.

The effective application and implementation of appropriate technologies has achieved impressive results. First, crude output was significantly boosted. In just three years, a dying oilfield had been revived, with its annual output increased from 600,000 barrels to 2.2 million barrels, leading the Peruvian media to hail the project's success as the most impressive news in Peru's oil sector. Second, a breakthrough was made in new well drilling. Since CNPC's takeover,

more than 200 new wells have been drilled, including a number of 1,000-barrel-per-day wells and Peru's first horizontal well. And third, expertise and experience has been gained in the progressive exploration and development of complex fault-block fields and the exploration and development of depleting fields. These achievements have fully reflected CNPC's technical advantage and capacity, winning us trust and respect from Peru's oil sector.



Exploration and Development Achievements in Peru:

- 3D seismic explorations were conducted for the first time in Block 7 of Talara Oilfield, discovering the northern San Juan Oilfield with an annual oil output of 576,000 barrels;
 - Breakthroughs were made in identifying new oil reservoirs, with multiple 1,000-barrel-per-day wells successfully drilled;
 - Drilling was extended to deeper zones, hitting a high-yield oil-bearing layer nearly 10,000 feet underground, debunking a mistaken claim long upheld in the Western geological community that "there are only aquifers 8,700 feet underground";
 - By innovatively applying layer dividing and re-perforating to stimulate old wells, a record high daily output of 3,300 barrels has been achieved;
 - Exploratory oil wells were drilled in "untouched" or "ruled-out" zones, with off-angle drilling techniques being used to extend the reach to offshore areas. All 31 new wells have encountered oil layers, with an average initial oil output of 118 barrels per day.
-



Since engaging in international oil and gas exploration and development activities 20 years ago, CNPC has given full play to its advantages in integrated operation and actively promoted technological advances and innovations in overseas projects, obtaining impressive achievements and standing out in the world oil industry. The company's "Key Technologies for Effective and Efficient Development of Overseas Oilfield" won the first prize of China National Science and Technology Advancement in 2011. CNPC's technological R&D and comprehensive integration of domestic and foreign technologies have achieved mutual benefits with host countries in Latin America, with its core technical competence and brand image considerably enhanced.

After decades or even more than a century of exploitation, most oilfields in Latin America have

entered their later stage of development, posing increasingly tough challenges for boosting oil production. Since taking over some marginal oilfields in Peru, Venezuela and Ecuador, CNPC has managed to rejuvenate these old oilfields and increase their oil output, by using applicable technologies and rich experience in mature reservoir stimulation, heavy oil exploitation and horizontal well drilling, based on fine reservoir description, study of remaining oil distribution and reasonable technical solutions. CNPC's "Technologies and Their Application for Tapping Potential of Marginal Oilfields in Venezuela" won the second prize of China National Science and Technology Advancement in 2002. The company's EOR technologies have also greatly impressed Latin American counterparts and won widespread recognition.

Talara Oilfield in Peru

Situated in the coastal desert to the west of the Andes in northwestern Peru, Talara Oilfield is one of the earliest developed oilfields in South America. Its Block 7 and Block 6 were put into development in 1874 and 1903, with peak annual output of more than 10 million barrels and 5 million barrels, respectively. In the early 1990s, the two blocks had reached their later stages of development, with 98% of the recoverable reserves already produced. Annual production plummeted to 650,000 barrels, and the two blocks were on the verge of being abandoned.

In October, 1993, SAPET Development Peru Inc. (SAPET), a subsidiary of CNPC, signed an EOR service agreement with the Peruvian Ministry of Energy and Mines and became the operator of Talara's Block 7 and Block 6 in January 1994 and October 1995, respectively. This marked CNPC's debut in overseas oil and gas operations.

Talara is a typical complex fault-block oilfield, featuring well-developed fractures and complex



Working Site of Block 6/7, Talara Oilfield, Peru

geological conditions. After more than 100 years of exploitation, drastic changes had occurred to its original oil and gas distribution pattern and features, making the controlling factors to oil/gas/water distribution more complicated, and the exploiting condition much more challenging.

In view of the fact that Talara Oilfield is quite similar to China's Bohai Bay Basin in geological characteristics, we conveyed our experience in progressive exploration and development of China's complex fault-block oilfields to Talara. By taking measures including comprehensive development evaluation, re-perforating of old wells, low-permeability reservoir stimulation, restoring shut-in wells, swabbing, and secondary oil recovery by water flood, production at the Talara field has increased and remained stable.

In order to develop the oilfield in a more efficient manner, maintain its stable production and continuously enlarge its resource base, CNPC decided to carry out progressive exploration and development in Talara as it has done for years in China. Based on in-depth and comprehensive studies of geological conditions of the oilfield, more targeted technical solutions were worked out, resulting in the discovery of 11 new oil-bearing fault blocks and four new gas-bearing fault blocks in Block 6/7, with substantial high-quality reserves. By drilling new wells and stimulating and restoring old wells, the oilfield's crude production has been significantly boosted. Since 1996, its annual output has remained above 1 million barrels and peaked in 1997 at 1.96 million barrels. In addition, the success rate of new wells has been greatly increased, especially in Block 6, where the success rate has reached 70% and a series of 1,000-barrel-per-day wells were drilled, causing a sensation in the local oil sector.

Caracoles Oilfield in Venezuela

Located in the south of the Eastern Venezuela Basin, the marginal Caracoles Oilfield features a monoclinic structure complicated by a large number of faults. Its oil reservoirs are characterized by small reserve volume, quick-declining output in single layer, deep burial depth, and high pressure coefficient. Most of the heavy oil reservoirs are edge-bottom water driven and flooded, with a water cut of more than 70%. Before being included in third round of international tenders by the Venezuelan government, Caracoles had been exploited successively by the Venezuelan private oil companies, US based oil companies and PDVSA for more than 50 years, and annual production once peaked at 4.85 million barrels. In February 1998, when CNPC took over the oilfield, there were only 43 producing wells yielding 221 tons per day. Most of its reservoirs had been already substantially exploited, flooded or depleted.



Caracoles Oilfield, Venezuela

There are many foreign oil companies operating in Venezuela. We believe that a good partner shall have advantages in oilfield operations, technology and management. After working with CNPC for nearly 10 years, we've been quite satisfied with the results. We look forward to working with CNPC on more projects in following decades.



Victor Moreno

Former president of PDVSA-CNPC joint venture PETROSIVEN

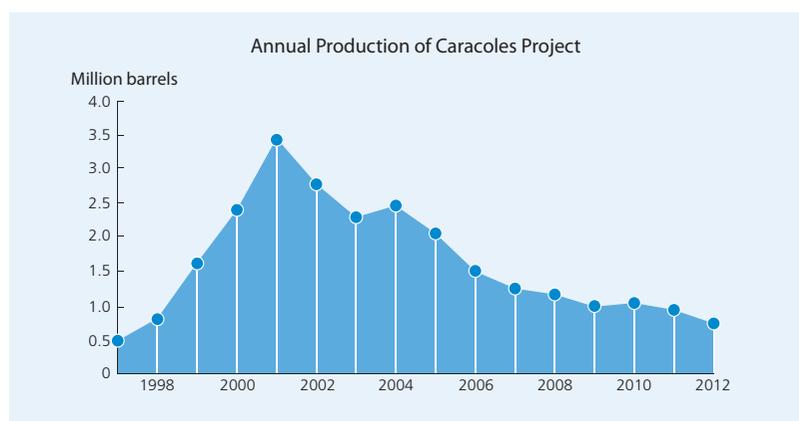


Since becoming the operator, CNPC has made a fine description of the field's tectonic features and reservoir distribution by integrated use of high resolution seismic data processing technology, multi-attribute fusion technology and high precision reservoir prediction technology, thereby laying a solid foundation for reservoir potential tapping and progressive exploration. In oilfield operations, fine reservoir description, low-resistivity reservoir identification and study of remaining oil distribution laws were made based on seismic and logging data, and research results were achieved in oil layer correlation and numerical simulation. By taking technical measures such as expanding edges, re-perforating old wells, extracting liquid by electrical submersible pumps, restoring shut-in wells, optimizing gas lift and heat-washing oil wells, both the reserves and production of the field were increased. In addition, satisfactory profit was achieved by using applicable drilling techniques, improving recovery techniques, and optimizing ground works. In less than three years, the oilfield's annual output was restored to 3.5 million barrels, close to its historic peak level. In the third round of international tenders, Caracoles ranked seventh among all the bidding fields in term of average daily output, winning CNPC recognition and acclaim from PDVSA and other industrial peers.

Thanks to the EOR program at the Caracoles Oilfield, CNPC has developed a package of sophisticated

technologies to further tap the potential of complex mature fields and integrated management of oil reservoirs, worked out a set of measures for effective well-site allocation and potential release of old wells, and integrated and innovated relevant support technologies to develop marginal fields.

In August 2006, CNPC signed a joint venture agreement with PDVSA, whereby PDVSA took over the operation of Caracoles Oilfield. CNPC, as a sincere partner of PDVSA, continued to implement the above mentioned measures to help maintain the oilfield's annual output at more than 1 million barrels.





“We’ve been working with CNPC for four years, with considerable progress made together, on the strength of which our daily output has achieved an impressive four-fold increase to 120,000 barrels and is still steadily increasing. Enjoying tremendous advantages in technology and development experience, the CNPC team is simply irreplaceable. Although there are some cultural differences between us, we nonetheless help and support each other, sharing the same goal of further development in oil production.”

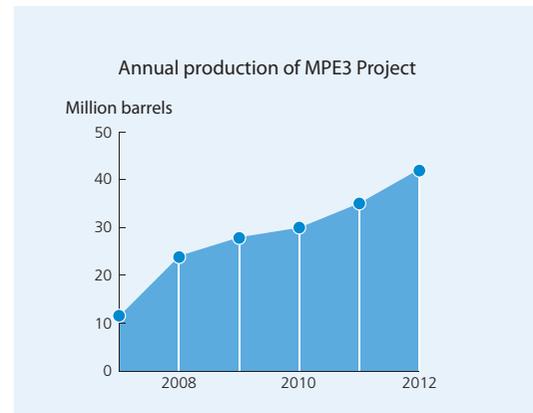
Erwin Hernández
President of PDVSA-CNPC joint venture SINOVENSA



Ultra-heavy Oil Development at MPE3 Project in Venezuela

The Orinoco Oil Belt (OOB), located along the southern margin of the Eastern Venezuelan Basin, is the world’s largest heavy oil enriched area with tremendous resource potential. As unconventional oil resources attract ever-increasing attention globally, the Orinoco Oil Belt is of great significance to global petroleum development.

The MPE3 project is located in the east end of OOB and was formerly known as the Orimulsion Project. CNPC and PDVSA established a joint venture for the Orimulsion Project in 2001, and later signed an upstream and downstream integrated cooperative agreement in March 2007. In February 2008, a Venezuelan-Chinese joint venture, SINOVENSA, was



Orinoco Oil Belt

established for the operation of the MPE3 project, which is CNPC's first major overseas ultra-heavy oil project.

The ultra-heavy oil in OOB features high density and high content of sulfur, heavy metal and asphaltene. Oil reservoirs in MPE3 are of unconsolidated sandstones lithologic structure and hard to tap by cold production due to the difference in their maturity level and the variation trend of their internal sand bodies, with oil recovery of 5%-10% generally. CNPC has sent a number of expert taskforces to the joint venture project to offer technical support and guidance focusing on key technologies such as the optimization of development well parameters, sand control, and break prevention of screw pumps. Chinese technical staff working at the MPE3 project actively introduced CNPC's sophisticated and proven technologies to their Venezuelan colleagues,

and widely applied a technical package of cold heavy oil production with sand in horizontal wells, successfully solving some technical problems caused by the unconsolidated sandstone formations and the rapidly rising gas-to-oil ratio. All the production wells at the oilfield are cluster horizontal wells, boosting the daily output from 30,000 barrels in 2007 to 130,000 barrels today. The project has built an annual production capacity of 7 million tons, achieving good development results and economic benefits.

Having been proven successful at the MPE3 project, CNPC's technologies for ultra-heavy oil development have been fully affirmed by the Venezuelan side, winning CNPC respect and greater influence in the joint venture. In addition, a working atmosphere has been fostered in which technical problems are always referred first to Chinese experts for solutions.

Andes Project in Ecuador

The Andes project is located in the hinterland of the Amazon rain forest, with more than half of its oil zone overlapping with a national natural reserve. Its unique geographic location and diverse, fragile ecological environment imposed great challenges on the oilfield development technology. In the Oriente Basin where Block Tarapoa and Block 14 are located, the major pay zones are Cretaceous sediments entrapped in subtle lithologic traps dominated by low amplitude structures. With over 30 years of development history, most oilfields in the area have entered into the middle and later development stage, featuring a high recovery percentage, rapidly rising water cut, low reserve-production ratio, fast natural decline in old wells, and irregular distribution of residual oil. These result in considerable difficulties for reserve replacement and production enhancement.

In August 2005, Andes Petroleum Ecuador Ltd., a joint venture between CNPC and China Petrochemical Corporation (Sinopec), purchased Encana's oil and gas blocks in Ecuador and served as the operator. After taking over the project, in spite of stringent environmental protection requirements and tremendous technical challenges brought about by the complex local geological conditions,



AndesPetro won the award of Excellent Work in Technology Transfer and Development Oil Industry in Ecuador.

the Chinese technical staff fully exploited their rich experience in mapping remaining oil distribution and tapping residual oil in the mature fields. Based on seismic, logging and drilling data, in-depth analysis on the low-amplitude structure and subtle traps, and fine description of key sections and formations, the distribution, morphology and hydrocarbon potential of the sandstone reservoir were effectively identified and predicted. Then, by optimizing the deployment and structural

design of the horizontal wells, the technical team has successfully solved drilling problems such as formation collapse and lost circulation, and also successfully applied and promoted technologies for completing horizontal wells in complex and subtle traps, with a string of high-yielding wells drilled. For example, Block Tarapoa's average daily output during the test runs of horizontal wells exceeded an impressive 900 barrels. In 2011, AndesPetro achieved a reserve replacement rate of more than 100% for the first time at the old oil zone, with the output of new wells accounting for 12% of the oilfield's total. In 2012, the Andes project's output reached 2.63 million tons of oil equivalent.

In 2011, Andes Petroleum Ecuador Ltd. received the award for Excellent Work in Technology Transfer and Development Oil Industry in Ecuador from the Ecuadorian Ministry of Non-renewable Natural Resources and SPE Ecuador Section.

Oilfield Services

CNPC's presence in Latin America could be traced back to the early 1990s when BGP first entered the geophysical prospecting market in the region. To date, CNPC provides a wide range of oilfield services in Latin America, including seismic data acquisition and processing, drilling, logging, formation test and well intervention, with 179 crews working as the contractors of local oil companies in Venezuela, Ecuador, Cuba, Peru, Colombia, Brazil, and Mexico etc.

BGP, boasting proven expertise and rich experience in geophysical prospecting operations in mountainous areas, shallow seas and rain forests, has become one of the most important onshore and offshore seismic data acquisition and processing service providers in Latin America. It provides relevant services to its clients through a seismic data processing center it established



Drilling Operation by Greatwall Drilling Company in Venezuela



Cuban Minister of Basic Industries Tomas Benitez Hernandez praised GWDC as a role model for Sino-Cuban cooperation.

in Caracas, Venezuela. On its 3D seismic data acquisition missions using towed-streamers in the Gulf of Venezuela, the company's offshore fleet successfully fulfilled the task. Although there were many unfavorable factors such as deep water, rapid changes of ocean currents, complex weather conditions, and the limited scope of the permitted work area, the quality of acquired data was highly commended by its client, PDVSA.

CNPC Greatwall Drilling Company (GWDC) is one of the most important drilling engineering service providers in Venezuela and Cuba. In Cuba's Guanabo Block, which extends from the coast to the sea bed, the reservoirs are subsea carbonates interbedded with large segments of mudstone with a high level of hydration activity. These are inducing factors of borehole shrinkage, borehole purification trouble, and intractable mud situations. Due to the frequent sticking of drilling tools, this area is called the "restricted zone for drilling" in Cuba. In drilling well GBO-103 in the block, GWDC adopted applicable techniques to control borehole shrinkage, and ensured smooth drilling operations by optimizing drilling displacement, mud parameters, drilling

parameters and the BHA. Well GBO-103 measures 4,470 meters in total depth, 3,384 meters in horizontal displacement and 1,854 meters in vertical depth, making it the only extended-reach horizontal well fulfilling its drilling purpose in the whole Guanabo Block. The integrated technologies adopted in the drilling have also become a standard operating procedure for drilling extended-reach horizontal wells in this block, winning the praise of the project client, CUPET.

CNPC Chuanqing Drilling Engineering Company Ltd. (CCDE) mainly provides well drilling, completion and workover services to Petroecuador, in a bid to further enhance oil recovery efficiency of the fields located in the Amazon area. In SACHA Oilfield's turnkey project in Ecuador, CCDE delivered impressive performance by improving its applicable technologies and optimizing its drilling tools. Six of the eight completed wells obtained high yield, with the highest single well output reaching 8,000-9,000 barrels per day. Well SACHA-331D was completed within 18.5 days, the record short single well drilling cycle.

Caring for Community Development





Wang Xingyi
Vice President of CNPC America Ltd.
President of CNPC Costa Rica

In Latin America, CNPC actively communicates with all stakeholders through various means and multiple channels, to understand their practical needs. Together with our partners, we participate in community development and public welfare programs and have made due contributions to support education, healthcare and community infrastructure for the wellbeing of local indigenous people.

Jointing efforts with the local governments and NGOs, we have launched community welfare activities in education, healthcare and production projects, resulting in substantial improvements to the infrastructure and life convenience of local communities. Considering the fact that most local tribes are located in remote and secluded areas, we send “mobile” medical teams to provide necessary medical services. We also help the tribal residents keep stable contact with the nearest towns by setting up communication stations. Our joint venture in Venezuela actively participated in the local “Affordable Housing Project”, sending employees to work on housing construction and help in other related works, from which more than 10,000 local residents have benefited.

We also make active efforts to cultivate management and technical talents for the oil industry in host countries. In August 2012, witnessed by the leaders of both China and Costa Rica, CNPC and RECOPE signed a framework agreement, under which CNPC would provide training to petroleum and non-petroleum professionals, management personnel and technicians in Costa Rica. Laura Chinchilla Miranda, President of Costa Rica, applauded CNPC’s efforts, remarking that

the cultivation of a new generation of oil professionals is of strategic significance to the country.

When AndesPetro took over Encana’s blocks in Ecuador in 2006, the surrounding communities were rife with inter-tribal conflicts, and afflicted with deteriorating security. To cope with this complex and volatile external environment, AndesPetro, in strict compliance with local laws and customs in fulfilling its community undertakings, innovatively established a “three-joints” mechanism (joint committees with the local government, local communities and employees respectively), thereby building a “bridge” of communication to constantly improve the relationship with all stakeholders. The company provides job opportunities for local people and also facilitated the local community’s participation in bidding activities and the supply of materials. It also actively helps the local community to build infrastructure and develop agricultural projects. Over the past six years, AndesPetro has financed two school bus routes for 500 local children, provided funds to over 10 local plantations, and created more than 1,500 indirect job opportunities for local people.

In addition, AndesPetro provides financial support to local foundations and NGOs, with the funding mainly used for youth education and medical assistance, disease prevention and treatment, and community capacity building. In 2009, the Petroecuador President spoke highly of AndesPetro’s commitment to sustainable development and its excellent performance in community development undertakings.

Building “Harmonious Communities” in Ecuador

Educational and Medical Assistance for Young People

AndesPetro actively supports youth programs focusing on healthcare, skills training and fostering social values, helping young people to plan their future development. By working with the Padre José Kentenich Foundation, AndesPetro provided financial support in training, food, education and healthcare services, covering more than 280 local children aged from three to 12. Through the “Pan Ecuador” Foundation, AndesPetro offered vocational training for 75 disabled young people, and provided strong support to their efforts to gain job opportunities. From 2007 to 2011, AndesPetro also provided scholarships for 50 local young people, including five college students. During the past six years, the company has offered assistance in building seven kindergartens, 41 primary schools, three middle schools, and two technical schools.



Disease Prevention and Treatment

The two community clinics built by AndesPetro provide year-round mobile care services, medical education and instruction, and disease prevention and treatment services, benefiting 5,000-8,000 local residents. Besides, AndesPetro supports innovative programs on disease prevention and treatment. By cooperating with the Por Una Vida Foundation, it has provided free medical treatment to more than 400 children afflicted with blood disorders. By offering financial support to the Virgen de la Merced Foundation, it has provided education, care and rehabilitation services to more than 70 children aged between two and 12 from low-income families who suffer from cerebral palsy and stunted intellectual development. In 2010, through the “Life” and “Smile Action” Foundations, the company donated RMB 460,000 to the Quito Child Welfare Institute to fund the medical treatment of 293 children with leukemia and 399 children with physical defects from low-income families.



International Arch of Europe Quality Award granted to AndesPetro



Latin American Quality Institute Award granted to AndesPetro



International star for Quality Award granted to AndesPetro



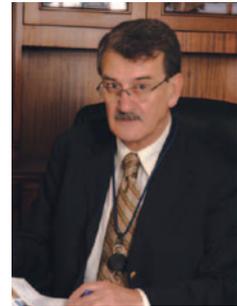
International Award to Excellent Company (the US) granted to AndesPetro

Support for Community Capacity Building

AndesPetro attaches great importance to community capacity building, and strives to offer continuous support to relevant community projects, helping local residents improve the quality of their lives. Fundación ALDEC (Alliance for the Development, Education, and Welfare of Street Working Children) is a highly influential NGO in Ecuador. AndesPetro started donating USD 7,500 annually to ALDEC in 2006 to support its “food sharing” program, providing meals and medical support for school children from poor, inner-city families in Quito. Due to the impact of the European debt crisis in recent years, many Ecuadorian people working in Europe lost their jobs, whose children suffered from lower incomes but benefited from this program. Cooperation with Fundación ALDEC has enhanced AndesPetro’s responsible image among Quito residents.

For its outstanding contribution to local community development, AndesPetro has been highly praised by Ecuador’s Ministry of Internal Affairs, the Ministry of Energy and Mines and Petroecuador through the local media. The company won acknowledgment from Cuyabeno’s local government for its cooperation in the Agricultural Fair in 2007. It also received acknowledgment for its Corporate Excellence from the Ecuadorian Journalists Confederation in 2007. According to residents in Tarapoa, AndesPetro is the first foreign company offering sincerity and friendship to local people in the 45-year Ecuador’s oil history. In 2007, AndesPetro reached a “permanent peace” agreement with the surrounding communities, paving the way for the long-term stability of the production base.

Over the years, AndesPetro has forged and maintained a very good relationship with the Ecuadorian Ministry of Non-renewable Natural Resources, Petroecuador, and the Ecuadorian National Oil and Gas Administration. Not only has it drawn great admiration for maintaining the highest operational standards in environmental protection, but also won widespread acclaim for its community undertakings. I’d like to take this opportunity to congratulate AndesPetro on making such outstanding achievements in the fulfillment of its social responsibilities and the protection of the environment of the Amazon rain forest.



Wilson Pastor

Ecuadorian Minister of Non-renewable Natural Resources



Award of Ecuadorian Company of the Year 2009 to AndesPetro



BIZZ Award for Business Excellence granted to AndesPetro



Acknowledgment from Cuyabeno’s local government for its cooperation in the Agricultural Fair in 2007



Acknowledgment to AndesPetro for its Corporate Excellence from the Ecuadorian Journalists Confederation in 2007

Building Schools for Raul Cuenca Community

Raul Cuenca in Venezuela is a community composed of a number of remote and secluded little villages, with a total area of 711 square kilometers and a total population of 12,847, including 5,100 children of school age. Before 2007, 80% of local residents were in poverty and more than 70% were unemployed. From 2007 to 2010, CNPC-PDVSA JV PETROSIVEN has donated

a total of USD 1.39 million to the reconstruction and expansion of six local elementary schools serving 1,250 children, with student canteens and baseball yards being built. For its outstanding contributions to local social development programs, PDVSA subsidiary CVP awarded PETROSIVEN the model among its 14 joint ventures.

Support for Education

In October 2006, CNPC's first overseas Hope primary school financed by Block 6/7 project was completed in Talara. Over the past years, Block 6/7 project has been providing a steady stream of funding and resources to the school. In 2012, the project company donated more funding to expand the school, and also launched a series of activities to support three other local schools, including renovating or constructing classrooms and computer rooms, hiring teachers, donating books and stationery, setting up scholarships and purchasing desks and chairs.

In 2010, CNPC's Zumano project donated clothing, electrical appliances and other materials to local schools to improve local students' learning and living conditions. In 2012, the employees of the Junin 4 project ran a "Let's Show our Love for Local Students" program, donating more than 100 items of stationery to local impoverished primary school students.

In March 2012, the CNPC 1AB/8 project in Peru entered into an agreement with the Loreto provincial government to "build a modern demonstration school in the rain forest zone", under which the 1AB/8 project would invest 1.2 million soles to build a modern school in Loreto's rain forest zone, with computers, books and sports equipment and a teaching faculty. The purpose of "building a modern

demonstration school in the rain forest zone" is to ensure access to education for all local children over five years old and to provide scholarships for students from impoverished indigenous families.



Employees from Block 6/7 project in Peru play games with local students.



Junin 4 project in Venezuela donates stationery to local students.

Local villagers place high expectations on the cassava-processing plant. We intend to reinvest most of our profits back into the plant, to expand our production scale and cassava cultivation area. I'm not worried about the sales, since our products are highly popular. And I'd like to point out that the Chinese people are always welcome here, and we are very grateful for their help.



Julio Correa (right)



General manager of the cassava-processing plant in Caico Seco, Venezuela

Cassava Plantation and Processing Plant

Caico Seco means “dry low-lying land” in Spanish. It is a small Indian village located in El Tigre, Anzoátegui, Venezuela, with around 50 indigenous households living there.

In 2005, CNPC incorporated Caico Seco into its local community development program. It invited agricultural experts from Guangxi Agricultural Scientific Research Institute to investigate and evaluate this area, and then, on the basis of the natural environment and the soil and labor conditions, decided to implement the cassava plantation and processing project in this community.

Cassava bread is a very popular food in Latin America, and also a mainstay of the local people's daily diets. In May 2005, PETROSIVEN invested in establishing a 30-hectare demonstrative cassava plantation in Caico Seco. In order to effectively manage the cassava plantation, the local villagers set up a plantation cooperative, and formed a management committee to take charge of the operation and management

of the plantation, with each household sending one person to work at the plantation. In 2007, PETROSIVEN invested approximately USD 240,000 to build a cassava processing plant, which became operational in August 2008. The plant produces 1,800 loaves of cassava bread daily, with a maximum capacity of 8,000 loaves per day, enabling the factory to be the second largest processing plant in Anzoátegui, and the third largest in Venezuela.

The cassava plantation and processing project helps promote local employment, and has lifted many impoverished families out of poverty. In addition, the processing plant also actively re-invested its profits in building more processing facilities and expanding production scale, thereby contributing substantially to the community's sustainable development. In June 2010, on its official website, PDVSA reported about the cassava processing project. It said: “CNPC and its local joint venture donated work clothing and equipment to Caico Seco's cassava processing plant, with over 300 local residents benefiting”.



Disaster Relief and Aid

When Peru, Cuba and Venezuela suffered from various natural disasters including earthquakes, hurricanes and floods, CNPC and its relevant project companies immediately took action and donated funds and supplies to disaster-stricken areas, to support relief efforts and the reconstruction campaigns of local governments and communities.

On August 15, 2007, Peru suffered a magnitude 7.5 earthquake, causing large numbers of casualties and considerable damage, with the quake-hit zone severely lacking food and drinking water. On the third day after the earthquake, CNPC donated and delivered large quantities of food and water to the affected areas.

In 2008, Cuba was hit by two devastating hurricanes that caused great damage. CNPC promptly donated 100,000 euros to the country's post-disaster recovery campaign, a noble humanitarian act hailed by the CUPET International Department as "a goodwill that further boosts the long-standing Sino-Cuban friendship". In October 2012, after Cuba was hit by Hurricane Sandy, the Cuban branch of CNPC Greatwall Drilling Company donated USD 50,000 to support relief efforts.

In December 2010, Venezuela suffered severe floods caused by continuous heavy rainfall. On behalf of CNPC, CNPC America donated USD 300,000 to the Venezuelan government to support the country's rescue and relief work.



Employee volunteers from Block 6/7 project in Cuba participate in a beach clean-up campaign.



Cuba's local press coverage of CNPC donations in 2008

Volunteer Activities

CNPC encourages its employees to serve local communities as volunteers in areas such as environmental protection and education. As of 2012, employee volunteers of CNPC America and its various project companies and joint ventures had worked for more than 1,000 cumulative volunteer hours for local communities, with over 460,000 people benefiting from this.

In 2011, 100 employee volunteers from Talara's Block 6/7 project company participated in various environmental protection activities and programs launched by the local government, including beach clean-up, field reconnaissance trips for municipal projects, and community environment evaluation. Their initiatives have gained extensive praise from both the local government and the Peruvian Ministry of Environment.



About Us



■ CNPC at a Glance

CNPC is one of world's major oil and gas producers and suppliers, as well as a globally renowned oilfield service provider and contractor in engineering and construction, with businesses covering exploration and production, refining and chemicals, natural gas and pipelines, marketing and trade, oilfield services, engineering and construction, equipment manufacturing, and financial services.

With total assets amounting to RMB **3.4** trillion and annual oil and gas production totaling **226** million tons of oil equivalent, CNPC is the world's **4th** largest oil company and ranked **6th** in the 2012 Fortune Global 500. The company now operates oil and gas investment projects in over **30** countries and provides oilfield engineering, technical and construction services in more than **60** countries and regions around the world.

■ Corporate Philosophy

Mission

Caring for Energy,
Caring for You

Goal

To build an integrated
international energy
corporation

Corporate Social Responsibility Philosophy

To fulfill corporate social
responsibility is the basic promise
and principle of our operations
and sustainable development.
CNPC strives to operate in an
environmentally friendly, safer and
more efficient way to continuously
supply energy to society and
create a better life for all.

International Cooperation Principle

Mutually beneficial cooperation
for common development

About this Report

This is the first report issued by China National Petroleum Corporation (CNPC) on its social responsibility performance in Latin America. "CNPC in Latin America" provides an overview of the main achievements made by CNPC in fulfilling its economic, environmental and social responsibilities in Latin America from 1993 to 2012.

In preparing this report, we adhered to the principle of being objective, criterion compliant, honest and transparent. This report is published in three languages: Chinese, English and Spanish.

In case of any discrepancy of interpretation, the Chinese version shall prevail. For convenience, such various terms as "CNPC", "the company" and "we" are used in this report to refer to China National Petroleum Corporation.

This report is available in both printed form and electronic form. You may download the e-version at our website www.cnpc.com.cn. For a printed copy, please send an email to csr@cnpc.com.cn. For more information, please visit www.cnpc.com.cn.

2006	Established the CSR reporting mechanism Dedicated CSR email address csr@cnpc.com.cn opened to public
2007	Issued our first CSR report
2008	Launched our website on Environment and Society
2009	Issued CNPC (Kazakhstan) Sustainability Report
2010	Issued "CNPC in Sudan" Established the Committee of Social Responsibility Management and External Expert Consultancy Panel
2011	Issued "CNPC in Indonesia"
2013	Issued "CNPC in Latin America"

Major Events of CNPC in Latin America

Oct. 1993 Acquired a service contract for Block 7 of Peru's Talara Oilfield.

Jul. 1995 Acquired a service contract for Block 6 of Peru's Talara Oilfield.

Jun. 1997 Won tenders for the Intercampo Oilfield and Caracoles Oilfield in Venezuela.

Apr. 2001 Signed a cooperation agreement on the Orimulsion project with PDVSA.

Nov. 2003 Acquired a 45% stake in Block 1AB/8 from PLUSPETROL.

Sept. 2005 Purchased oil and gas assets of five blocks owned by Encana in Ecuador.

Aug. 2006 Entered into a joint venture agreement with PDVSA to develop Zumano Oilfield.

Mar. 2007 Signed an agreement with PDVSA to expand cooperation in the Orinoco Oil Belt.

Feb. 2008 Established a joint venture with PDVSA to operate the MPE3 project.

Nov. 2008 Entered into an agreement with RECOPE to establish a joint venture refinery.

Dec. 2010 Signed a joint venture operation agreement with the Venezuelan Ministry of Energy and Petroleum on Block Junin 4 in the Orinoco Oil Belt.



World Heritage — Machu Picchu

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