

ENVIRONMENTAL REPORT

2017

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MESSAGE FROM ANATOLY S. NURYAEV, FIRST DEPUTY DIRECTOR GENERAL OF OJSC "SURGUTNEFTEGAS"

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ANATOLY S. NURYAEV First Deputy Director General OJSC "Surgutneftegas"

For 40 years, OJSC "Surgutneftegas" has been building up its economic potential and competitive advantages, striking a balance between production tasks and preservation of favorable environment, creating safe, comfortable conditions for people's lives, work and rest. We adhere strictly to environmental legislation, work according to the environmental standards, operate under a principle of informational transparency.

OJSC "Surgutneftegas" steadily mitigates the environmental impact in the course of operating activities, ensures environmental safety of production facilities, resource saving, preserves biodiversity conservation and the primordial living environment of the small-numbered indigenous peoples of the North.

The Company annually spends about RUB 20 billion to fund environmental projects, expecting to maintain the high level of investments into the environmental protection in the future.

In the Year of Ecology and specially protected natural reservations, the Company actively arranged clean-up activities and planting of greenery. Surgutneftegas traditionally participates in federal and regional environmental events, performs construction and equipping of environmental

facilities. One of the major projects was finished in 2017, a gas turbine power plant at the Yuzhno-Nyurymskoye field in Uvatsky District of Tyumenskaya Oblast was commissioned.

We never stop at what has already been achieved and continuously improve environmental and resource-saving programs, further develop an eco-responsible attitude of our personnel. In 2017, an Ecological Council was established in OJSC "Surgutneftegas" to make strategic decisions aimed at implementation of infrastructure projects based on the analysis of business activity and development forecasts.

Respect for the environment is the ultimate principle of sustainable development of the Company. OJSC "Surgutneftegas" strictly adheres to rules and standards of rational use of natural resources – those are primary objectives of the Company: from employees to managers. High professionalism and self-reliance, including scientific research, application of the best technologies available allows us to ensure the environmental safety and increase the oil recovery and therefore using the subsoil riches with the maximum efficiency to the benefit of the Russian Federation.

01

# **Environmental** policy

Basic principles of the Environmental policy of OJSC "Surgutneftegas"

The Company's responsibilities



#### **Environmental policy**

Nowadays, mitigation of a negative environmental impact of business activity on the environment is one of the higher-priority national tasks. Sustainable, harmonious development of the country, people's health, conservation of rare flora and fauna species depend on the effectiveness of its performance.

Vladimir V. Putin, President of the Russian Federation

OJSC "Surgutneftegas" is one of the leaders in Russian oil and gas industry. The name of the Company is always associated with stability, reliability, high technological and economic efficiency, compliance with modern industrial and environmental safety requirements, and high social responsibility.

The Company closely follows environmental legislation of the Russian Federation, takes into account principles of international conventions and treaties. In 2017, the Company's investments in environmental activities exceeded RUB 21 billion.

According to the corporate
Environmental policy that meets the topof-the-line specifications and practices,
OJSC "Surgutneftegas" rationally uses
natural resources, applies knowledgeintensive modern innovations and low-waste
technologies, decreases energy consumption
and cuts costs. The Company exercises
constant control over production processes,
provides environmental training for its
employees. The Company's environmental

standards cover the activity of contractors, subcontractors and suppliers of the Company in the form of environmental commitments.

OJSC "Surgutneftegas" advocates developing long-term collaboration with the residents of the regions of the Company's presence, including the small-numbered indigenous peoples of the North, based on the principles of respect, trust and cooperation. The Company in a mandatory manner coordinates the placement of production facilities on the territories of traditional nature use and habitats of the small-numbered indigenous peoples of the North with the indigenous people, meets the most stringent requirements to conducting exploration, construction of field facilities, located on specially protected natural reservations.

For four years running,
OJSC "Surgutneftegas" has been among
the top three of the Rating of environmentally
responsible Russian oil companies compiled
by "CREON" group with the participation of
the World Wildlife Fund of Russia and the
National Rating Agency.

OJSC "SURGUTNEFTEGAS" WAS THE LEADER OF THE RATING – COMPILED WITH THE PARTICIPATION OF THE WORLD WILDLIFE FUND – OF ENVIRONMENTALLY RESPONSIBLE RUSSIAN OIL COMPANIES IN 2014 AND 2015 AND A PRIZE WINNER IN 2016 AND 2017

## Basic principles of the Environmental policy of OJSC "Surgutneftegas"

- Systematic mitigation of a negative environmental impact of technological processes and environmental risks through implementation of the best available technologies as well as scientific and technical achievements.
- Giving priority to prevention of negative environmental impact as compared with mitigation of consequences of such impact.
- Maintaining industrial and environmental safety in line with up-to-date international standards and requirements.
- Rational use of natural resources based on implementation of innovative environmentally efficient and resource saving technologies.
- Systematic control over compliance with industrial and environmental safety requirements.

- Preservation of the primordial environment, traditional way of life, business activities and industries of the indigenous people of the North.
- Environmental monitoring in the areas of the Company's operations.
- Improvement of environmental activity and environmental management system in the Company's divisions.
- Improvement of the personnel's environmental skills.
- Cooperation with parties concerned, public organizations and the media.
- Transparency of the Company's socially significant environmental efforts.



#### The Company's responsibilities

To implement the basic principles of the Environmental policy, the Company undertakes the following responsibilities:

- 1. Adhere to the requirements of the legislation of the Russian Federation in the fields of environmental protection and sanitary and epidemiological welfare of the population.
- 2. Assess environmental risks while developing project documentation for the construction of facilities in ecologically sensitive areas.
- 3. Conduct a comprehensive environmental impact assessment (EIA) of projects from construction to decommissioning.
- 4. Conduct a strategic environmental assessment while implementing large-scale infrastructure projects of the Company.
- 5. Ensure efficient environmental activity and improve its control system.
- 6. Improve industrial and environmental safety at the Company's facilities, assume required measures to ensure integrity of oilfield equipment, including pipelines.
- 7. Enhance power efficiency of production processes at all production stages.
- 8. Reduce motor fuel consumption and improve the environmental performance of the Company's vehicles.
- 9. Ensure rational environmental management, mitigation of a negative environmental impact, compensation of possible damage to the environment.
- 10. Implement "green office" principles in each administrative building of the Company's headquarters and business units.
- 11. Implement all possible measures on preservation of biodiversity, animal migration paths in the areas of operations, timely reclamation of disturbed lands as well as reduction of natural landscapes fragmentation by laying linear facilities in the existing utility line areas and placing site facilities on previously disturbed lands within existing industrial sites.
- 12. Avoid carrying out works in the territory of World Natural Heritage sites and wetlands having special significance and

in specially protected natural reservations when designing site structures and oilfield infrastructure facilities. In the absence of such possibility – observe special mode of business activity.

- 13. Take account of interests and rights of the small-numbered indigenous peoples to lead the traditional way of life and preservation of primordial living environment.
- 14. Observe current rules and standards of the Company's employees' conduct in specially protected natural reservations and waste management requirements, demand observance of these rules and standards from contractors.
- 15. Organize regular professional and environmental training of the Company's employees.
- 16. Ensure wide accessibility of environmental information on the Company's business activities, transparency of environmental management and decisions made in this area.
- 17. Apply environmental standards of the Company to the activity of contractors.

The present Environmental policy is among the Company's priorities and is brought to notice of each employee of the Company.

The Environmental policy, which expresses the Company's position regarding the environment and adherence of the principles of sustainable development in modern conditions, is the basis of the Company's development strategy and planning of its activity in the field of environmental protection for short and midterm periods.

The Environmental policy is carried out by means of fixing in the contracts the responsibilities of contractors, subcontractors and suppliers of the Company in the field of environmental protection in the areas of its operations.

The Environmental policy is subject to revision, adjustment and improvement in case the Company changes its development priorities and operational conditions.

02

Policy on interaction with the small-numbered indigenous peoples of the North



#### Policy on interaction with the smallnumbered indigenous peoples of the North

Support of the small-numbered indigenous peoples of the North, development of long-term and solid cooperation based on mutual respect and trust is one of the Company's priorities.

Territories historically inhabited by the Khanty, Mansi, Nenets and other small-numbered peoples which are engaged in deer herding, fishing, hunting, gathering of wild-growing herbs and other traditional Northern industries overlap with the Company's license blocks. It is the territory of environmental and social responsibility of OJSC "Surgutneftegas".

Basic principles employed by the Company for interaction with the smallnumbered indigenous peoples of the North:

- Compliance with federal and regional legislation aimed at protecting the rights and legitimate interests of the smallnumbered indigenous peoples.
- Preservation of the primordial environment, traditional way of life, business activities and industries of the indigenous population.
- Recognition of the importance of land, water bodies, wild-growing herbs and game animals, maintaining environmental resource potential of the ecosystems as the basis for the traditional nature management of the small-numbered peoples.
- Rational use of land and natural resources in places of traditional residence and

- traditional business activities of the smallnumbered indigenous peoples of the North.
- Obligation to respect the ethnic identity, culture and local customs of the indigenous people.
- Maintaining a balance between the interests of the Company and the small-numbered indigenous peoples of the North by imposing mutual selfrestrictions and obligations.
- Ensuring participation of representatives of the small-numbered indigenous peoples of the North in decision-making on placement of business assets in the territory of their living and traditional farming.
- Conclusion of economic agreements and treaties as the most important tools of equal partnership with the indigenous people in order to compensate for the limitation imposed on the traditional use of natural resources.
- Transparency of the Company's socially significant environmental efforts, the state of the natural environment and the relations with the small-numbered indigenous peoples of the North.

While implementing social and economic projects to develop infrastructure, support education, culture and improve living standards of the indigenous population, OJSC "Surgutneftegas" concludes agreements with the regional authorities and municipalities. Moreover, contracts on subsoil use of land parcels within the boundaries of traditional nature management areas, aimed at solving social problems of the local population are concluded with the holders of traditional nature management rights. Monitoring and control of the performance of contractual relations is done using special software "Small-numbered indigenous peoples of the North".

Services dedicated to work with the small-numbered indigenous peoples of the North operate in the Company's headquarters and business units. The Company provides the indigenous population with health, transportation, communication services and supplies (snowmobiles, motorboats, boat engines, chainsaws, construction materials, etc.).

The personnel's awareness of the environmental safety issues is constantly increasing. Educational seminars with the employees of OJSC "Surgutneftegas" and its contractors are organized to discuss the code of conduct with the indigenous

population, unscheduled briefings prior to admission to work in the territory of living of the indigenous peoples and their traditional farming are given.

Adherence to a special access mode is organized, which restricts entry of unauthorized persons, conveyance of fire arms, fishing equipment, explosives and hazardous chemicals, dogs and other animals as well as alcohol beverages; hunting, fishing and wild harvest gathering at the territory of living of the small-numbered indigenous people and their traditional farming are strictly prohibited.

Absolute inviolability of the property of the indigenous population as well as places of the worship and shrines is provided.

Measures are taken to ensure safe traffic at the intersection of road traffic routes with deer paths and roads of the indigenous people by sign posting, building safe crossings and driveways and their timely clearing; clearing dirt roads and driveways from fallen trees used by the small-numbered indigenous peoples of the North.

In order to maintain a stable cooperation relationship and to improve the system of relations with the small-numbered indigenous peoples of the North, OJSC "Surgutneftegas" analyzes and takes into account the experience of other subsoil using companies.





# Key areas of environmental activity

Environmental facilities and equipment availability

#### Key areas of environmental activity

In order to assure the successful implementation of the provisions of the Company's Environmental policy, OJSC "Surgutneftegas" prioritizes and makes its own business units to strictly adhere to the comprehensive measures of the Ecology program which is aimed mainly at systematic planned mitigation of industrial impact upon the environment.

#### PRINCIPAL AREAS OF THE ECOLOGY PROGRAM:

- construction of environmental facilities;
- ensuring environmental safety of oil production facilities, including pipelines;
- protection and rational use of land;
- air protection;
- protection and rational use of water resources;
- industrial waste decontamination and utilization;
- monitoring of natural environment components and control of production facilities operation;

- environmental training and education of the personnel;
- implementation of "green office" principles in each administrative building of OJSC "Surgutneftegas";
- biodiversity conservation in the areas of the Company's operations;
- research studies in the field of environmental protection.

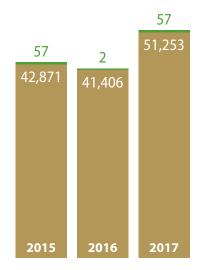
The Company annually ensures a steadily high level of investments in the Ecology program. For the last five years solely, the Company spent over RUB 97.4 billion on environmental protection measures and environmental safety. In 2018, the Company is planning to spend RUB 17.6 billion on these purposes.

IN 2017, INVESTMENTS OF OJSC "SURGUTNEFTEGAS" IN ENVIRONMENTAL PROTECTION TOTALED RUB 21.1 BILLION

In 2017, payments for the negative environmental impact amounted to RUB 51.3 million, including above-limit payments – RUB 57.3 thousand (0.1%). In particular, abovelimit payments for disposal of consumer waste generated by Yakutsk Representative Office of the Company are due to lack of landfills included into state register of waste disposal facilities and enterprises performing licensable type of activity on waste management, stipulated since 01.07.2016 in the area of Yakutsk. Above-limit payments for excess air pollutant emissions were caused by the use of diesel power plants in order to maintain operation of health resorts of the health trust "Surgut" during unplanned power outages in Krasnodarsky Krai.

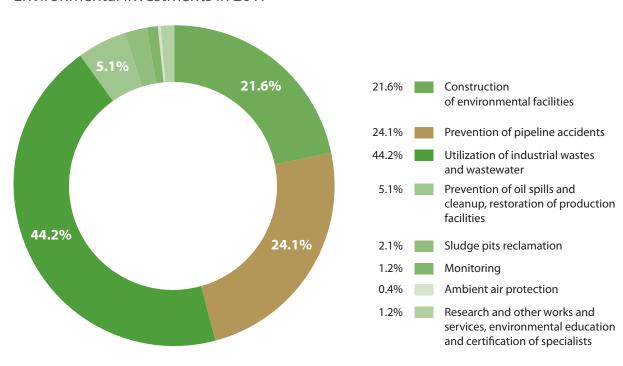
The increase of payments for negative impact in 2017 in the absence of increase of pollutant emissions (discharges), volume of waste disposed is due to changes in the payment record keeping system since 1 January 2016, introduction of requirements on quarterly advance payments and changes in application of additional rates when calculating the amount of payment for a negative impact.

### Payments for the negative environmental impact, RUB thousand



- Payments for the allowed emissions (discharges) of pollutants (disposal of production and consumption waste)
- Payments for the above-limit emissions (discharges) of pollutants (above-limit disposal of production and consumption waste)

#### Environmental investments in 2017



### Environmental facilities and equipment availability

OJSC "Surgutneftegas" having the best available technologies ensures rational use of associated petroleum gas, recycling of wastes, drilling waste utilization and sludge pits reclamation. To carry out environment-related activities the Company uses a large and periodically updated fleet of machinery and equipment.

Among the assets, which ensure the environmental safety of the production are:

- gas processing plant;
- 23 gas turbine power plants and 7 gas reciprocating engine power plants (GTPP, GREPP);
- 28 compressor stations;
- 2 gas processing units for associated petroleum gas utilization;
- 111 initial water separation units (IWSU);
- 6 centers for oily soil decontamination;
- 3 centers for sludge decontamination with sludge storage ponds, units for oily fluid recovery and Heater-Treater threephase separators;
- 4 mobile units for tank cleaning and initial oil sludge treatment, including three-phase centrifuges;
- 33 single and multiple cell sludge storage ponds with a total capacity of 81 thousand cubic meters;
- 10 units for thermal oil sludge decontamination with a total capacity of 70 thousand cubic meters per year;
- 4 landfills for disposal of solid household and industrial wastes designed to accommodate production and

consumption waste with a total capacity of 1,151 thousand cubic meters;

- 24 mobile Forsazh units for thermal decontamination of solid oily waste with a total capacity of 17.28 thousand tonnes per year;
- units for shredding waste paper and non-returnable plastic containers with a capacity of 1,150 kilograms per hour and 50 kilograms per hour respectively;
- a tire recycling plant for recycling wornout tires and inner tubes with a capacity of 5 thousand tonnes per year;
- a workshop for application of anticorrosion coating on pipes and pipeline fittings with a capacity of 720 kilometers of pipes and 15 thousand fittings per year.

A high level of environmental safety of production on the whole territory of the Company's operation, including new regions is ensured by a sustainable financing of environmental protection measures.

The annual ongoing costs of OJSC "Surgutneftegas" for environmental protection are made up of a number of different costs, including those of repairing and replacing pipes, protecting oilfield equipment and facilities from corrosion, preventing equipment failures and elimination of their consequences, preventing oil spills and their cleanup, air protection, industrial wastewater treatment, waste management, land reclamation, environmental monitoring and research work.



# **Environmental** safety of oilfield facilities

Accident risk mitigation measures

Receipt inspection of pipes

Field pipeline corrosion monitoring

Pipeline inhibitor protection

Use of pipelines with anticorrosion coating

Dehydration of oil in IWSUs

### Accident risk mitigation measures

OJSC "Surgutneftegas" implements a long-term comprehensive program on increasing the operational reliability of the field pipelines which results in high level of environmental safety in the Company.

Reduction of accident risks at the oilfield pipelines is ensured by implementation of innovative technologies and diagnostic methods, timely preventive measures, replacing of pipelines, creation of modern methodology and technical regulatory basis that covers these issues.

The Company utilizes a system approach based on package solutions for optimized quality control of construction and safe maintenance of field pipelines. The Company's spheres of activity to increase the operational reliability of the field pipelines are:

- pre-engineering work, design and examination of project documentation in terms of environmental safety;
- destructive and non-destructive receipt inspection of tubular goods (pipes, fittings);
- dehydration of well production in initial water separation units;

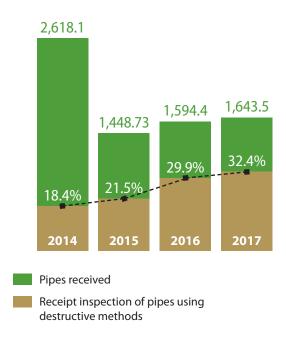
- use of pipes with external and internal corrosion resistant coating;
- pipeline inhibitor protection;
- field pipeline corrosion monitoring;
- regular ground and air patrolling and inspection of field pipelines;
- timely field pipelines routine repairs and overhaul;
- conducting hydraulic calculations for field pipeline systems;
- control over pressure and volume balance of pumped fluids;
- creation and maintenance databases, computer modeling of the existing systems of field pipelines for the purpose of their optimization.

## Receipt inspection of pipes

Performance reliability of field pipeline systems is important at each phase of operation starting from receipt inspection and compliance verification of pipes. Receipt inspection is conducted for 100% of pipes for oil and oil and gas pipelines of OJSC "Surgutneftegas".

To ensure environmental safety of the pipelines and maintain a high level of pipes quality, the Company performs receipt inspection of the pipes using destructive and non-destructive methods. In 2017, 533.3 kilometers (32.4%) of pipes underwent receipt inspection by destructive testing with 5.04 kilometers (0.3%) of pipelines non-compliant with the requirements of technical specifications.

Pipes received and inspected, km



5 KILOMETERS OF PIPELINES REJECTED BY OJSC "SURGUTNEFTEGAS" WERE REPLACED BY THE SUPPLIER WITH HIGH QUALITY PRODUCTS

## Field pipeline corrosion monitoring

Pipeline corrosion monitoring, i.e. constant control of risk factors, causing the corrosion of field pipelines, allows the Company to assess the technical condition of a pipeline with a high degree of probability.

The main reason for loss of integrity of field pipelines is their corrosive wear due to aggressiveness of transported liquids. Among other risk factors – the pumping mode of well production, temperature and the condition of pipeline metal.

The most accurate data on the status of field pipelines in the operating conditions can be acquired through aggressiveness monitoring of transported fluids, pipeline pigging, thickness gauging.

Corrosion monitoring of the Company's field pipelines is performed at 728 points of control. This method is a tool for managing the efficiency of anti-corrosion measures taken that allows the Company among other things to track and adjust inhibition rate in time.

Based on the pipelines condition data the Company organized their routine repairs and overhaul. In 2017, 579.9 kilometers of pipelines underwent overhauls.



### Pipeline inhibitor protection

Development of the system of pipeline integrity management by OJSC "Surgutneftegas" allowed us to decrease the risk of pipeline failures by 10 times. Corrosion and comprehensive inhibitors are used to increase the reliability of pipelines, and mitigate the risks of corrosion damage to pipes.

The Company implemented the system of process chemicalization which includes program-targeted planning and management as well as a system for the admission of chemical products for use. In 2017, 2,702 tonnes of inhibitors and multifunctional reagents with complex properties were used to protect 2,488 kilometers of field pipelines from corrosion. Corrosion inhibitors are injected by 411 chemical injection units, which are equipped with devices for

automatic control of operating parameters with production processes data transfer to ASU TP "OKO-TsITS OGPD".

Receipt inspection of corrosion inhibitors is made by means of infra-red spectrometry. The quality of all lots of corrosion inhibitors received during the year conformed to the standard specimen. Development of the system of pipelines integrity management ensures environmental safety of their operation.

PREVENTED ENVIRONMENTAL DAMAGE IN THE AMOUNT OF RUB 209 MILLION IS REACHED DUE TO USE OF PIPELINE INHIBITOR PROTECTION



## Use of pipelines with anti-corrosion coating

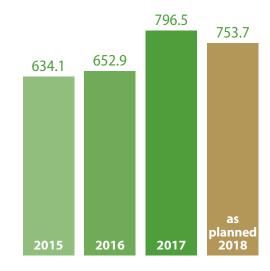
The use of pipes with improved corrosion resistance and especially – with internal anti-corrosion coating is the strategic way to implement measures aimed at minimizing environmental risks.

Timely application of pipes and fittings with internal protective coating in the pipeline system is currently beyond question. Since 2013, OJSC "Surgutneftegas" has been implementing programs of capital construction, reconstruction and overhaul of oil and gas pipelines using only pipes with anti-corrosion coating.

The Company employs goods produced by its own plant that applies internal anticorrosion polymer coatings on pipes and pipeline fittings. The production is arranged taking into the account the leading present-day practices using new high-tech equipment and best materials.

Since the commissioning, the Company has produced more than 1,700 kilometers of pipelines and 47,000 fittings with internal coating. In 2017, due to production optimization the Company managed to increase the amount of goods produced. In 2017, the Company produced 619.1 kilometers of pipes and 27,675 pipeline fittings. To protect welded pipe joints having internal anti-corrosion coating, OJSC "Surgutneftegas" uses protective sleeves of its own production. In 2017, the Company produced more than 67,000 of those.

In 2017, the Company introduced 796.5 kilometers of pipelines with internal anti-corrosion coating, including 471.6 kilometers – according to the capital construction plan, 324.9 kilometers – as part Introduced pipelines with internal anti-corrosion coating, km



of the overhaul program. The total amount of introduced pipelines is about 3,500 kilometers representing 44% of the total length of the Company's oil and gas pipelines.

By the end of 2018, the amount of introduction of pipelines with internal anti-corrosion coating in the Company will exceed 4,200 kilometers.

MORE THAN 1,700,000 METERS OF PIPES WITH INTERNAL ANTI-CORROSION COATING IS PRODUCED AT THE COMPANY'S OWN PLANT USING THE CUTTING EDGE TECHNOLOGY AND ADVANCED MATERIALS

### Dehydration of oil in IWSUs

Transportation of dehydrated oil is an efficient method of corrosion protection. For 10 years, the Company has been using initial water separation units at the booster pump stations that are based on Heater-Treater three-phase separators.

The use of this equipment is crucial at watered, marsh areas with the huge amount of water courses which are typical for the Company's areas of operation. The territory where OJSC "Surgutneftegas" operates is characterized by a high level of marshiness: at different sites it can vary from 40% to 90%.

Dehydration of oil is done at 111 boosterpump stations with initial water separation units, 105 of which are equipped with Heater-Treater separators. Preliminary separation of produced formation water at IWSU, which is recycled in the system of reservoir pressure maintenance, helps reduce the length and diameter of tank water pipelines excluding the corrosion-prone operation mode of pipelines, cuts accident risks and diminishes a threat of pollution of gathering grounds and water bodies.

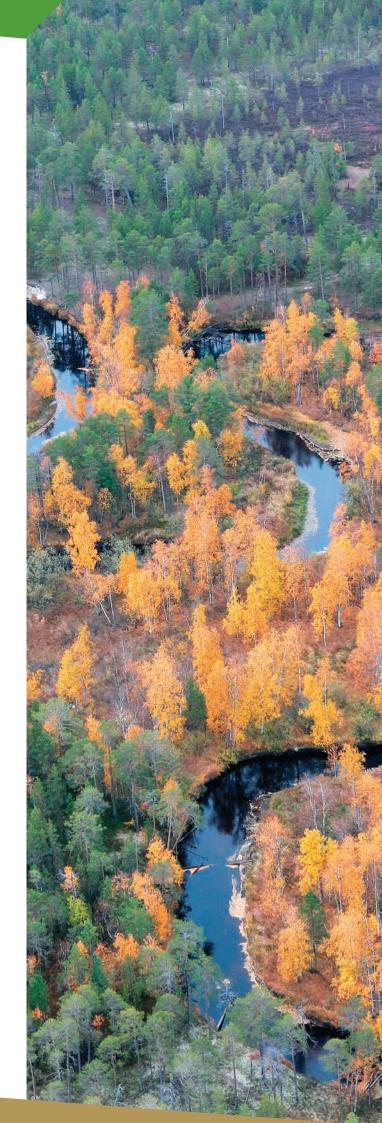
Due to preventive measures in 2017, the Company managed to perform accident free operation of its field pipelines.

APART FROM ACCIDENT RISK MITIGATION, THE USE OF INITIAL WATER SEPARATION UNITS ALLOWS THE COMPANY TO REDUCE THE SPECIFIC QUANTITY OF METAL FOR PIPELINES AND ENERGY CONSUMPTION DURING OIL PUMPING AT FIELD PIPELINES, SAVE AND RATIONALLY USE THE WATER RESOURCES

## Protection and rational use of land

Land reclamation and forest protection

Pollution prevention and elimination



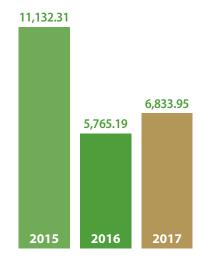
### Land reclamation and forest protection

For many years, OJSC "Surgutneftegas" has been in the good standing for the purposes of land reclamation and land parcels return to the Forest Fund of the Russian Federation. Their timely return is made annually in accordance with programs and project documentation of the Company.

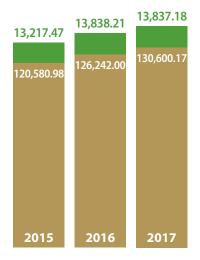
An ecosystem approach allows the Company to consistently achieve high results during technical and biological reclamation of used lands. Technical stage of disturbed lands rehabilitation involves agrotechnical measures to create a layer of soil with properties favorable for biological reclamation i.e. a complex of revegetation measures to restore the fertility of disturbed lands.

In 2017, the Company returned 6,833 hectares of land to the State Forest Fund of the Russian Federation (in 2016 – 5,765 hectares). Increase of reclaimed land is connected with intensified measures on rational use and timely turn over of lands, given in lease for exploratory drilling and seismic facilities.

Return to the Forest Fund of the Russian Federation, ha



Areas of lands in use by OJSC "Surgutneftegas", ha



When choosing the reclamation technology, the specialists are primarily guided by specific natural conditions at the location of the disturbed site. On the territory of Khanty-Mansiysky Autonomous Okrug – Yugra represented by a flat terrain with a large number of rivers, lakes and marshes, technology and equipment for reclamation are unique and selected individually for each type of landscape. The Company utilizes equipment and materials that allow us to minimize the impact on lands and to mitigate soil damage by temporary driveways of vehicles during land reclamation.

The Company annually takes measures on forest protection and fire protection of its facilities. There are stationary and mobile stations with fire-fighting equipment at all Company's production sites.

owned leased

COSTS FOR PROTECTION AND RECLAMATION OF LANDS, SURFACE AND GROUND WATER RESERVES EXCEED RUB 2 BILLION



### Pollution prevention and elimination

The priority direction of land protection is prevention of land from oil and oil products contamination. Timely elimination of such pollution consequences, if necessary, is done using Company's own resources.

In compliance with the legislation of the Russian Federation in the sphere of environmental safety and prevention of emergency situations the Company developed, approved and implemented the Plan on prevention and elimination of oil and oil products spills at the facilities of OJSC "Surgutneftegas" at the federal level and corresponding local plans.

The Company maintains instant readiness of forces and means for elimination of possible consequences of accidents and incidents, oil and oil products spills elimination and the following rehabilitation of polluted land. The complex of high-performance equipment includes:

- 136 oil skimmers designed to operate in various oil viscosities and under diverse weather and climatic conditions;
- 4 skimmer boats for skimming of oil on the surface of rivers and lakes, including 6 shallow water trimarans;
- 93 self-contained high-pressure pumps;
- 12.78 kilometers of easy-to-assemble aluminum pipes;
- 20.48 kilometers of fast deployable mobile booms both lightweight and reinforced made of frost-proof materials for onshore protection;

- 15.17 kilometers of absorbent booms;
- 45 mobile tanks for temporary oil storage;
- 22 sprinklers for biological agents and bacteria treatment;
- 9 units for producing thermally exfoliated graphite absorbent (U-SRTG) with the capacity of 30 kilograms per hour;
- 31 multifunctional floating platforms equipped with an attached system for water bodies and inshore zone integrated treatment;
- 32 vacuum dump trucks and 51 tank trucks for oil products pumpdown and transportation from the areas of oil spills;
- 147 dump trucks for oily soil transportation;
- 24 all-terrain vehicles with excavators and other equipment.

Surgutneftegas possesses necessary materials and equipment, special oil-gathering equipment, means of communication, motor vehicles and qualified personnel and is ready for immediate elimination of oil and oil products spills of any level (from the local to federal) under any circumstances in any type of area and high-quality reclamation of contaminated land.

Oil spills are eliminated by out-of-staff accident rescue units (ARU (O), created on the basis of oil and gas production divisions and lubricants and chemical additives facility of Vitim of the technical maintenance and equipment completing base in the Republic of Sakha (Yakutia).

The number of personnel involved in the measures for localization and elimination of oil and oil spills is 441 people. The number of ARU (O) staff amounts to 115 people, including 114 rescuers (99%) certified by the industry certification commission of the energy sector of the Ministry of Energy of Russia.

Works on land reclamation are performed only at recently emerged areas due to the fact that in 2012 Surgutneftegas completed the reclamation of all oil contaminated lands of the so called legacy. In 2017, five accidents occurred at the Company's fields involving oil and initial water spills which resulted in contaminated lands with the area of 1.26 hectares, which have been fully reclaimed in the reporting year. Additionally, previously reclaimed lands with the area of 5.06 hectares were excluded from the register of territories and water bodies of Khanty-Mansiysky Autonomous Okrug – Yugra contaminated by oil, oil products and formation water.

THE OIL SPILL PREVENTION AND RESPONSE SYSTEM OF THE COMPANY IS UNIQUE AND MEETS INTERNATIONAL ENVIRONMENTAL SAFETY STANDARDS FOR THE OIL INDUSTRY







### **Air protection**

#### Air protection

OJSC "Surgutneftegas" is the Russian fuel and energy industry leader in terms of efficient utilization of associated petroleum gas. Air protection measures are aimed at mitigation of a negative impact of production processes. It is achieved through reduction of emissions of pollutants to the atmosphere, particularly due to rational use of associated petroleum gas.

At present, the Company ensures a record level of associated petroleum gas utilization of more than 99%, it was reached in 2012. The milestone of 95% was successfully passed in 2008. The Company zealously develops the ways of APG processing and its further utilization for electric power production reaching a significant reduction of pollutant emissions to the atmosphere in the amount of 3 million tonnes per year.

The Company has a well-developed production infrastructure for associated petroleum gas utilization: 23 gas turbine power plants and 7 gas reciprocating engine power plants, which use APG for power generation. Along with the construction and operation of the small-scale power generation facilities, OJSC "Surgutneftegas" successfully implements other ways of rational use of APG. Associated petroleum gas is used at a gas processing plant in Surgutsky District, is injected in oil bearing horizons to maintain reservoir pressure in the Republic of Sakha (Yakutia), is used in all the areas of

the Company's operations as fuel for boilers, furnaces, initial water separation units, etc.

In order to diminish air pollutants emission to the atmosphere, the Company carries out measures on reduction of emissions during the periods of adverse meteorological conditions, reductions of hydrocarbons losses, improvement of energy efficiency of production. Operating setup of fuel-fired equipment is performed, operational effectiveness of gas treatment units is controlled, their inspection, current repair and overhaul are carried out on a regular basis. Environmentally friendly fuel is used, motor vehicle fleet is renewed, fuel efficiency of motor vehicles is increased. The Company keeps records of substances which destroy ozone layer, transits the equipment to coolants which are safe for ozone layer. Measures aimed at prevention of spills of oil and oil products are carried out. The Company performs industrial control of air pollutant emissions at all stationary and mobile units.

DUE TO A HIGH LEVEL OF USEFUL UTILIZATION OF APG, SURGUTNEFTEGAS ANNUALLY PREVENTS EMISSIONS OF MORE THAN 30 MILLION TONNES OF METHANE AND CARBON MONOXIDE GREENHOUSE GAS (IN  ${\rm CO_2}$ -EQUIVALENT) INTO THE ATMOSPHERE

#### IMPLEMENTATION OF AIR PROTECTION MEASURES

Indicator	2016	2017	2018 (estimate)
APG utilization, %	99.34	99.32	At least 99
The level of air pollutant emissions, tonnes per year	185,119.623	176,706.788	175,000.000
Main objects for APG utilization, including	31	32	32
– gas processing plant	1	1	1
– gas turbine power plants	22	23	23
– gas reciprocating engine power plants	7	7	7
– compressor station for gas injection	1	1	1
Investments in air protection measures,	1,507.57	2,536.02	2,118.17
including construction of air protection facilities, RUB mn	1,409.15	2,443.29	2,023.72

In 2017, a gas turbine power plant at the Yuzhno-Nyurymskoye field in Tyumenskaya oblast was put into operation, a network of pipelines was constructed. In 2018, the Company expects to construct the gas separation facility at the Rogozhnikovskoye field and low pressure separation compressor stations at the Yuzhno-Vatlorskoye field as well as more gas pipelines.

As the result of steady and constant carrying out of air protection measures, implementation of program on construction and upgrading of APG utilization facilities,

OJSC "Surgutneftegas", over the years, demonstrates a sustainable mitigation of emissions of pollutants to the atmosphere. Emissions of pollutants are decreased by 5% (8.4 thousand tonnes) against 2016.

A comprehensive engineering and environmental approach to air protection challenges allows the Company to use valuable resource (APG) rationally, implement into production process, supply energy to its own facilities, avoid construction of many kilometers of power lines.

07

# Protection and rational use of water resources



### Protection and rational use of water resources

Wastewater recycling allows the Company to maintain low specific water consumption – below 2 cubic meters of water per tonne of oil produced.

The Company performs surface and ground water abstraction for industrial, technological, economic and domestic needs in strict compliance with the regulatory documents, and strives to reduce the fresh water consumption. The water protection measures are aimed at resource saving, rational water use and prevention of water bodies pollution.

OJSC "Surgutneftegas" evaluated soft groundwater reserves at all water intake points with production rate over 100 cubic meters per day. There are sanitary protection zones developed for all drinking water intake points, their designs have received positive sanitary-epidemiological conclusion.

WETLANDS ACCOUNT FOR 75% OF THE COMPANY'S LICENSE BLOCKS IN KHANTY-MANSIYSKY AUTONOMOUS OKRUG – YUGRA, THE MAIN REGION OF ITS OPERATION, WHICH REQUIRES A SPECIAL PROCEDURE FOR OPERATING

#### INFORMATION ON WATER CONSUMPTION

Indicator	Unit	2016	2017	2018 (as planned)
Water production	′000 cub m	82,631.7	83,258.539	85,482.047
incl. fresh subsoil	′000 cub m	4,443.797	4,426.35	6,682.047
Surface water abstraction	′000 cub m	18,919.33	17,847.025	15,124.661
Specific water consumption	cub m/t	1.65	1.65	1.64

All treated wastewater from the Company field facilities serves as injectant for a reservoir pressure maintenance system to significantly decrease freshwater intake from the surface and underground water bodies. In 2017, about 446.5 million cubic meters of sewage and formation water, including about 3.3 million cubic meters in the Republic of Sakha (Yakutia), was injected. Total volume of treated household water injected to maintain reservoir pressure in the reporting year was 4.2 million cubic meters, including 2.6 million cubic meters in the Republic of Sakha (Yakutia).

Effluents from OJSC "Surgutneftegas" facilities located in the Yakut village of Vitim are discharged into biological treatment facilities, and further streamed to the Romanovsky Klyuch brook after being cleaned to the required standard.

Throughout its area of operations, the Company implements the program of the construction of initial water separation units based on three-phase separators, which are usually mounted on booster pump

stations and are designed to separate the water-oil emulsion and bring the water to the requirements of the relevant standards. IWSU enables to efficiently separate produced formation water for its further use in maintaining reservoir pressure, thereby reducing the corrosion load on the pipeline and the volume of water abstraction from surface and groundwater bodies.

Much consideration is given to the construction of other water protection facilities. In 2017, drain tanks were installed at 21 well pads, ramps were reconstructed at 80 sites. In the reporting year, the capital investments in construction of water protecting facilities totaled RUB 111.55 million, more than RUB 522 million is planned for expenditures on this goal in 2018.

Due to the implemented package of measures, OJSC "Surgutneftegas" manages to minimize the impact on the water bodies. According to the monitoring results of the environmental components at the Company's license blocks, the impact on the environment is described as acceptable.

A "ZERO" DISCHARGE OF POLLUTANTS TO SURFACE WATER BODIES IS ENSURED BY UTILIZING NEARLY 100% OF TREATED HOUSEHOLD SEWAGE IN MAINTAINING RESERVOIR PRESSURE

#### **INFORMATION ON WATER DISCHARGE**

Indicator	Unit	2016	2017	2018 (as planned)
Waste water injection	′000 cub m	458,674.4	446,545.1	442,079.6
incl. household sewage	′000 cub m	4,071.4	4,240.5	4,198.2
Wastewater discharge into water bodies	'000 cub m	31.9	21.7	22.5





### **Waste management**

Sludge pits reclamation

#### Waste management

OJSC "Surgutneftegas" introduces new technology that allows waste utilization, decontamination and processing. The Company manages to utilize and decontaminate 100% of generated oil sludge, used oils, tires with fabric and metal cords in its production process.

Annually, the operation activity of the Company results in nearly 800 thousand tonnes of production wastes, the greater part of which (more than 70%) consists of drill cuttings. To minimize the negative impact on the environment, Surgutneftegas strives to reduce drilling waste generation, to exclude toxic chemicals in preparation of drilling fluids.

Environmentally friendly and resource saving technology of pitless drilling is employed in Western Siberia; it is certified by the State Environmental Expert Commission on a federal level. Decontaminated drill cuttings are used as soil during earth fill construction on well pads. BAT application not only allows OJSC "Surgutneftegas" to reach 75% drill cuttings recycling and drill wells in areas with

a special mode of management, but also avoid oil sludge transportation to utilization sites and necessity to dispose and bury them.

Another particular type of waste generated during oil production is oil sludge that makes up 6.7% of the total waste produced by the Company. There are single and multiple cell sludge storage ponds in OJSC "Surgutneftegas" that collect oil sludge and drill cuttings, oil containing fluids and contaminated soil for treatment and decontamination all year round. Decontamination of oil sludge and oily soils is performed by a panning method at six centers and four upgraded lines for fluid phase recycling. Decontamination of oil sludge by a thermal method is performed using 10 Szhigatel incineration units.

#### **WASTE MANAGEMENT IN OJSC "SURGUTNEFTEGAS"**

Indicator	2016	2017	2018 (as planned)
Waste generated, '000 tonnes	742.99	837.66	737.81
incl. drilling waste	486.83	591.94	486.3
Waste utilized, '000 tonnes	475.21	527.11	481.50
incl. drilling waste	392.05	444.54	398.30
Waste utilization level, %	63.96	62.93	65.26
incl. drilling waste	80.53	75.10	81.90
Waste decontaminated, '000 tonnes	43.94	50.54	43.87
incl. drilling waste	22.18	27.75	22.1
Waste disposal and burial, '000 tonnes	186.34	235.52	184.60
incl. drilling waste	42.91	100.90	41.1

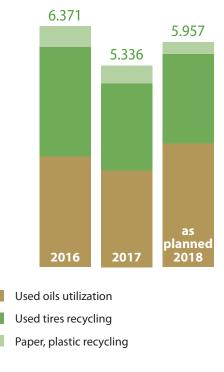
The use of these facilities allows the Company to prevent the burial of over 55,000 cubic meters of oil sludge and oily soils every year, the level of their decontamination reaches 100%.

In 2017, OJSC "Surgutneftegas" completed upgrading and technical reequipment, construction of oil sludge utilization sites at the Fedorovskoye and Vatlorskoye fields. A site for industrial waste disposal, accumulation and decontamination at the Yuzhno-Nyurymskoye field is planned for commissioning in 2018.

The Company uses 24 Forsazh thermal destruction units for thermal decontamination of oily waste cloth, filters and other solid oily waste (0.385 thousand tonnes in total).

All mercury containing waste of hazard class I (28.35 tonnes) has been transferred to specialized companies for further decontamination in accordance with current agreements.

Waste utilization and recycling, '000 tonnes



THE COMPANY FULLY DECONTAMINATES 100% OF ITS OIL SLUDGE USING THERMAL AND PANNING METHODS

#### **DECONTAMINATION OF OIL SLUDGE AND OILY SOILS**

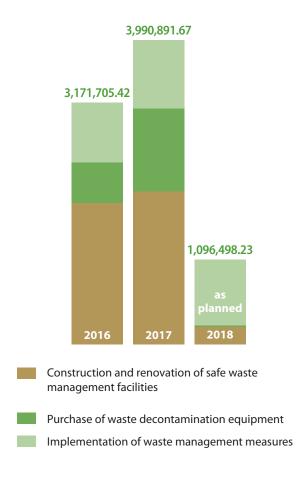
Indicator	2016	2017	2018 (as planned)
Generation, '000 cub m	48.45	55.56	63.08
Decontamination, '000 cub m, including	48.45	55.56	63.08
– using Szhigatel incinerators	33.90	46.29	49.73
– at panning centers	14.55	9.27	13.35
Decontamination level, %	100	100	100

Used oils appearing as a result of various production processes of OJSC "Surgutneftegas" oil and gas production divisions are fully utilized into commercial oil after clean-up (settling).

For utilization of worn-out car tires, a modern complex for recycling 100% of tires with fabric and metal cord is used. The Company makes a certified product – rubber chips – used at asphalt-concrete plants of Surgutneftegas to modify bitumen. The use of this equipment along with the environmental effect (prevention of disposal of production waste at landfills) makes it possible to improve the quality of a hard surface road and to profit from the sale of the product in demand – rubber chips.

The Company sells recyclable material obtained by grinding paper and polymer-containing waste products, as well as by pressing cardboard.

Investments in safe waste management, RUB thousand



COMPREHENSIVE APPROACH TO SOLVING WASTE MANAGEMENT TASKS, TECHNOLOGIES AND EQUIPMENT EMPLOYED ALLOW THE COMPANY TO MAINTAIN LOW SPECIFIC FACTOR OF WASTE PRODUCTION AND DISPOSAL (0.013 TONNES AND 0.004 TONNES PER 1 TONNE OF PRODUCED OIL RESPECTIVELY)

#### Sludge pits reclamation

OJSC "Surgutneftegas" applies enhanced scientifically and economically proved technologies of reclamation and thus provides effective restoration of ecological functions of disturbed lands occupied by sludge pits. One of the most important goals of the corporate Ecology program is to reduce the negative impact of drilling wastes disposed in sludge pits.

Based on the results of an experimental scientific research carried out by the Company together with V.N.Sukachev Institute of Forest SB RAS and lasting many years, a unique technology called forest rehabilitation has been developed and is widely used; it involves reclamation of sludge pits without backfilling. Project document called "Construction, running and remediation of sludge pits at the license blocks of OJSC "Surgutneftegas" in the territory of the State Forest Fund of the middle taiga subzone in Western Siberia" has received approval from the State Environmental Expert Commission.

In the reporting year, 21 sludge pits were successfully reclaimed using this method. Forest rehabilitation enables to make full use of the natural self-healing potential,

stimulates the natural process of overgrowing of sludge pits taking into account geological and climatic conditions of the region and also natural processes of transformation of oil sludge into soil forming material.

Exceptional efficiency of the method is proved by the results of research of phytocenoses formed on reclaimed sludge pits. Such plant communities – that include the Red Book species – surpass dominating phytocenoses in productivity and biological diversity.

Numerous advantages of the forest rehabilitation technology used by OJSC "Surgutneftegas" in comparison with other disturbed lands reclamation methods arouse reasonable interest from other largest Russian oil and gas producing companies.

09

# Indicators of an environmental impact



#### Indicators of an environmental impact

A leading position of OJSC "Surgutneftegas" in the industry with a minimum impact upon the environment has been achieved due to a comprehensive approach to solving environmental protection problems.

No.	Name of specific indicator	Unit of measure	2014	2015	2016	2017
1	Oil production	'000 tonnes	61,425.0	61,621.5	61,848.7	60,544.9
2	Gross pollutant emissions into the atmosphere	'000 tonnes	144.9	132.2	185.1	176.7
3	Specific pollutant emission into the atmosphere per volume of oil produced	kt/t	2.4	2.1	2.99	2.92
4	APG utilization level	%	99.14	99.38	99.34	99.32
5	Waste produced	'000 tonnes	716.1	725.8	714.0	797.3
6	In-house utilized waste	'000 tonnes	422.9	452.6	417.1	462.3
7	Waste treated in in-house production	'000 tonnes	37.9	43.0	43.9	50.5
8	Transferred to external companies	'000 tonnes	202.3	183.3	181.7	176.7
9	Specific waste disposal	t/t	1.08	1.07	1.11	1.16
10	Water consumption	′000 cub m	91,273.1	100,509.8	101,551.04	101,105.56
11	Specific water consumption	cub m/t	1.49	1.63	1.65	1.65
12	Discharge of wastewater into surface water bodies	cub m	0	0	0	0
13	Total land area at the beginning of the year	ha	119,086	131,681	133,798	140,080
14	Total land area at the end of the year	ha	131,681	133,798	140,080	144,437
15	Disturbed land area at the beginning of the year	ha	16,413	14,251	13,742	10,700
16	Disturbed land area at the end of the year	ha	9,645	3,060	7,911	3,866
17	Polluted land area at the beginning of the year	ha	1.5	0	0	0
18	Polluted land area at the end of the year	ha	0	0	0	0
19	Amount of oil (oil products) spilled (remained) as a result of pipeline ruptures and accidents	kg	0	0	0	0

No.	Name of specific indicator	Unit of measure	2014	2015	2016	2017	
20	Number of oil, oil products and formation water spills	units	3	9	9	5	
21	Share of above-limit payments in the total amount of pollution charge	RUB/RUB	0.001	0.001	0.000	0.001	
22	Share of environmentally friendly fuel (high-octane gasoline Euro 4-5, diesel Euro 3-4-5, gas motor fuel) in the total amount of fuel used	%	94.78	94.78	94.24	93.99	
23	BOILER AND FURNACE FUE	L CONSUMP	TION:				
	Fuel oil	tonnes	693	572	607	644	
	Diesel fuel	tonnes	14,115	16,702	17,916	16,476	
	Oil	tonnes	38,848	34,194	32,329	40,056	
	Gas	′000 cub m	2,956,079	3,023,042	3,078,228	3,135,174	
24	MOTOR FUEL CONSUMPTION	DN:					
	Gasoline	liters	23,108,516	20,283,604	18,771,097	19,054,054	
	Diesel fuel	liters	307,714,630	300,927,112	293,654,921	311,979,886	
	Kerosene	liters	107,817	64,333	71,756	58,305	
25	Vehicles' total mileage	km	497,048,100	485,542,315	477,344,756	483,638,262	
26	Volume of reduction of fuel and energy consumption	'000 tonnes of equivalent fuel	126,784	168,358	183,608	184,161	
27	Consumption of power from external sources for in-house needs	mn kWh	6,665	6,290	6,560	6,061	
28	Electric power saving	mn kWh	1,031	1,369	1,493	1,497	
29	Consumption of thermal energy from external sources for in-house needs	Gcal	162,625	145,092	150,871	147,987	
30	Thermal energy saving	Gcal	7,435	15,055	14,045	14,240	
31	Supply of electric power to external consumers	′000 kWh	638,216	620,428	565,565	552,531	
32	including in-house generated (Eastern Siberia)	′000 kWh	128,608	152,620	177,904	172,862	
33	Supply of thermal energy to external consumers	Gcal	33,945	31,887	29,877	23,615	
34	including in-house generated	Gcal	33,336	31,415	29,541	23,366	



### In-house environmental monitoring

# In-house environmental monitoring

There is a production environmental monitoring system established in OJSC "Surgutneftegas", it provides constant monitoring of the environment and assessment of its changes allowing the Company to timely identify the adverse changes that happen under the influence of anthropogenic and natural factors.

The observational network of environmental monitoring has been operating at the Company's license blocks for many years. The area that has been monitored by now is around 150 thousand square kilometers. An extensive database has been developed that covers contamination of environmental components of license blocks prior to the commencement of their commercial development (initial (background) contamination) and after the

fields are put in production, along with local environmental monitoring.

The environmental monitoring of manmade facilities, including well sites, waste disposal landfills, sludge storage ponds, flares, pipeline crossings with watercourses is aimed at identifying their specific impact on the environment and is the information basis for anthropogenic impact management system and for the adoption of appropriate management decisions.

PRODUCTION ENVIRONMENTAL MONITORING IS CONDUCTED OVER ALL LICENSE BLOCKS AND MAN-MADE FACILITIES OF THE COMPANY IN ACCORDANCE WITH THE ENVIRONMENTAL LEGISLATION

In 2017, environmental quality control was carried out at 122 license blocks of the Company at 5,468 control points, including:

- when assessing the initial contamination and conducting local environmental monitoring of license blocks at 1,440 control points;
- during environmental monitoring of manmade facilities at 4,028 points;
- when monitoring the condition and contamination of vegetation cover around sludge pits by expert interpretation of space and aerial photography at 381 sites.

OJSC "Surgutneftegas" has the license to operate in the sphere of hydrometeorology and related areas, including determination of the pollution level of ambient air, water and soil.

During the environmental monitoring the Company performs sampling of surface and ground waters, bottom sediments, soils, snow cover and ambient air in its 11 accredited laboratories fitted out with the superior equipment. All the labs are accredited, including the Central Base Laboratory for Ecoanalytical and Technological Studies of the Engineering and Economic Implementation Center, for 164 measurement techniques; the production and research laboratory of the R&D and production work site in OGPD "Talakanneft" - for 80 techniques, physical and chemical testing laboratories of R&D and Design Center of six oil and gas production divisions – for 20 techniques.

Apart from in-house laboratories, for environmental monitoring,

OJSC "Surgutneftegas" engages independent third-party organizations whose reports are accepted by the regulatory bodies when exercising regulation and supervisory functions.

The Company practices remote monitoring of its fields by air patrolling, including the use of unmanned drones, large-scale aerial photography and ultrahigh resolution space imagery. Remote sensing data is used to make inventories of disturbed lands, develop and update projects for sludge pit reclamation, projects for local environmental monitoring and sampling schemes, perform landscape monitoring, assess current environmental situation at license blocks and solve other ecological problems.

Based on expert interpretation of remote sensing data, geobotanical monitoring is performed in the area of sludge pits, which is an important aspect of environmental monitoring in Surgutneftegas.

The Company pays much attention to the principle of respectful attitude to the culture and ethnic identity of the indigenous people. Thus, to monitor the purity of Lake Imlor, a sacral site of the Khanty of the Surgut Ob area, a special program was developed and agreed by the Surgut branch of the Ob-Ugric Institute of Applied Research and Development. Since August 2013, samples have been taken and analyzed monthly from ten locations: no cases of exceeding the limits for the quality of surface waters, bottom sediments or soils were identified.

The results of environmental monitoring have confirmed that the Company operates with a minimum impact on the environment, environmental conditions at license blocks of OJSC "Surgutneftegas" are favorable.

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# Industrial environmental control



### Industrial environmental control

In the Year of Ecology and specially protected natural reservations, the Ecological Council started functioning; it is chaired by First Deputy Director General of OJSC "Surgutneftegas" who supervises over the entire environmental management system of the Company. Industrial environmental control (IEC) is its integral part.

The Company has the effective vertically integrated two-level system of IEC. The tasks of Surgutneftegas Ecological Council include reduction of the environmental risks, environmental impact of production processes, and, certainly, rational use of natural resources. One of the main functions is the environmental assessment, including the projected evaluation, of the planned operations of the Company in specially protected natural reservations.

The industrial environmental control activities are arranged annually according to the plan with mandatory preparation. Industrial control measures in the field of waste management can be either special-purposed or a part of complex measures ensuring compliance with environmental legislation as a whole. Inspectorial and ecoanalytical control are exercised according to the technological normative documents of OJSC "Surgutneftegas.

The Company oversees compliance of the inspected facilities with the natural

environmental legislation, ecological safety standards and in-house standards as well as adherence to waste management regulations, ecological, sanitary-epidemiological rules and guidelines of waste management provided by its internal documents, instructions of waste management and Draft Regulations on Waste Creation and Limits on Waste Disposal. Also, Surgutneftegas makes proposals on required actions and works and their deadlines and issues sample collection and ecoanalytical control results reports.

Fulfillment of proposals and instructions is controlled without preliminary notification of the person to be inspected. The Company monitors fulfillment of the instructions every month. The results obtained are reported at the summing-up meeting.

IEC results are accounted, analyzed and summarized to be further used in implementation of industrial control within waste management.

#### THE RESULTS OF INDUSTRIAL ENVIRONMENTAL CONTROL

Level of control	2015			2016		2017			
	Number of inspections	Number of inspected objects	Number of comments	Number of inspections	Number of inspected objects	Number of comments	Number of inspections	Number of inspected objects	Number of comments
Level I control	314	951	1,417	371	1,339	1,611	276	1,768	2,023
Level II control including protection of lands and water bodies from wastes, air protection	42	389	545	42	575	624	44	590	512

The results of the analysis of comments are announced at the monthly council of business units heads under the chairmanship of Director General and also at the meetings on the issues of compliance with the environmental legislation.

The contact information of responsible departments can be found in the numerous information boards placed at every field of the Company. Communication with

the public and public organizations is arranged on the official website of the Company (www.surgutneftegas.ru, section "Ecology", "Public information"). One can post on the Company's official website the environmental information on violations, underperformance and failings of the Company's business units and employees. There were no appeals with regard to these issues in 2017.



Environmental education and professional training of employees

## Environmental education and professional training of employees

The Company's management team is striving to make the environmental culture and environmental safety compliance a rule for every employee of Surgutneftegas.

Environmental education and training of employees are important aspects in maintaining the level of environmental safety of production, they contribute to the awareness and acceptance by the Company employees and contractors of the principles of respect for the environment and natural resources, and strict compliance with the requirements of environmental legislation of the Russian Federation.

OJSC "Surgutneftegas" encourages the personnel to develop their competence by participating in professional skills competitions "Best-in-Profession". They are also attended by environmental engineers whose function involves monitoring the implementation of all environmental requirements in the production, compliance with regulations.

Avoidance of accidents and defects, highquality work, excellent performance indicators in the field of environmental safety of the Company's production facilities are among the criteria for selecting winners of economic competitions held among teams of oil and gas production shops, as well as between well overhaul and workover crews.

To ensure regular professional training of its employees in handling wastes of hazard classes I-IV, there are professional training courses developed by OJSC "Surgutneftegas" for its managers and specialists responsible for decisions on business activities and other issues as well as workers admitted to manage wastes. In 2017, 409 Company employees improved their skills in the abovementioned area.

The training of specialists in ambient air protection continued. Sixty-two employees had training under the course of provision of environmental safety by managers and specialists of the environmental departments and environmental control systems.

As part of the implementation of the agreement on cooperation between Surgutneftegas and the Center for conservation and restoration of wetland ecosystems of the Institute of Forestry of the Russian Academy of Sciences, a workshop on spatial analysis of environmental risks of the optimal location of oil production facilities in SPNR was conducted using modern information technologies. Twenty-four specialists of OJSC "Surgutneftegas" attended the workshop.

The Company raises environmental awareness among its employees everywhere: induction meeting is held with the personnel prior to each shift. Employees are obliged to study special memos when working in the territories with a special mode of business activity, including Numto nature park. To visualize the basic principles of the Environmental policy, code of conduct in specially protected natural reservations and interaction with the small-numbered indigenous peoples of the North, there are animated films available for viewing and discussion in work teams.

Environmental education of personnel is an essential part of large socially significant work. Numerous employees of the Company participate in the implementation of environmental initiatives, often bringing children along to the events, with an understanding of importance of formulating a system of environmental knowledge in families from the earliest age.

The Company continues systematic work to upgrade the skills of personnel in the field of environment protection and environmental safety aimed at implementation of the Environmental policy of OJSC "Surgutneftegas".



Implementation of "green office" principles

## Implementation of "green office" principles

OJSC "Surgutneftegas" maintains ecostandards that enable to save costs on upkeeping office premises. Implementation of "green office" principles in administrative buildings of the Company is one of the Ecology program areas to support reduced consumption of natural resources and electric power and adequate waste management.

The "green office" principles are implemented through the following activities:

- usage of modern energy-saving (LED, electrodeless, fluorescent) lamps and spotlights in indoor and outdoor lighting systems;
- usage of electronic ballasts in fluorescent spotlights;
- usage of programming units and motion sensors in indoor lighting systems and daylight sensors and automatic switches in the outdoor lighting;
- optimization of operating mode of electrical equipment and heat consumption of buildings;
- replacement of air conditioners with multi systems;
- implementation of energy efficient pumping modules and ventilators;
- usage of power filters at workplaces to switch off simultaneously several units of equipment after completing work;

implementation of metering devices, water flow and heat consumption regulators.

The Company utilizes the electronic document flow (the DIRECTUM system) which has reduced the number of printed documents, including color-printed ones. Default double-sided printing is set automatically for all printers. This makes it possible to significantly diminish the stationary paper consumption.

The paper used by the Company's headquarters and business units as well as packing board and other wastes related to stationery and paperwork are collected and disposed to be processed by its own unit. Shredded and compressed paper wastes are valuable recyclable material which is transfered to specialized enterprises under the contracts for its further use.

Centralized work on the collection of waste paper, the exclusion of its burial is conducted in all business units of OJSC "Surgutneftegas", it covers all administrative buildings of the Company and is aimed at implementation of "green office" principles.



Biodiversity conservation and support of specially protected natural reservations and other territories with special mode of management

**Biodiversity conservation** 

Support of specially protected natural reservations and other territories with special mode of management

#### **Biodiversity conservation**

Conservation of biological diversity is an integral part of the comprehensive Environmental safety program, the main objectives of which are to preserve the original state of the territory of license blocks and to consistently reduce the impact of production on the environment.

Biodiversity conservation program, as part of the Ecology program, includes monitoring of biodiversity indicator species in the vicinity of production facilities of the Company, reproduction of aquatic biological resources, forest rehabilitation activities and scientific research.

Leading experts of Lomonosov Moscow State University and the Institute for Biological Problems and Cryolithozone, Siberian Branch of RAS have developed lists of key biogeocenoses indicator species (vascular plants, mosses, lichens, birds, mammals) for Khanty-Mansiysky Autonomous Okrug – Yugra and the Republic of Sakha (Yakutia) where the Company performs most prospecting, exploration and production of hydrocarbons.

More than 36 million young fish (peled, muksun, sturgeon) were released into water bodies in 2017 in order to restore biological resources and maintain biodiversity, OJSC "Surgutneftegas" allocated around RUB 120 million for this. In the course of remediation activities, more than 515,000 pine saplings were planted. Expenditures on this part of the biodiversity conservation program exceeded RUB 13 million.

The Company is among the top three enterprises of the Khanty-Mansiysky Autonomous Okrug – Yugra in terms of the area of plantings among enterprises performing compensatory planting of conifer saplings. OJSC "Surgutneftegas" planted young trees over an area of 140 hectares in 2017, the fact for which the Company received a certificate "Keepers of the cedar forests of Yugra".

Biological monitoring in Numto nature park continued in the reporting year, as well as monitoring of bioresources in the Republic of Sakha (Yakutia) where the Company operates.

Bird protection devices were installed on power lines in Numto nature park in 2017. The devices were installed at power grid facilities in the southern part of the nature park where in the course of ornithological studies the habitats of peregrine falcon, rare species of birds that needs special protection had been discovered earlier. The work was done under the agreement on cooperation concluded between OJSC "Surgutneftegas" and All-Russia public organization "Russian bird conservation union".

FINANCING OF BIODIVERSITY CONSERVATION PROGRAM EQUALED RUB 7 BILLION IN THE REPORTING YEAR, THE AMOUNT OF FUNDING FOR 2018 IS PLANNED AT THE SAME LEVEL

# Support of specially protected natural reservations and other territories with special mode of management

Operating activities of Surgutneftegas within the boundaries of specially protected natural reservations are subject exclusively to fulfillment of license agreements for subsoil use.

The Company strictly observes the special order of business activities, particularly, when operating within SPNR. It adheres to its Environmental policy which provides for compliance with the rules and customs adopted in the places of residence of the small-numbered indigenous peoples of the North. Our main goal in terms of SPNR is to ensure maximum conservation of indigenous environment, traditional way of life, economic activities and industries of the indigenous population.

To implement the basic principles of preserving the ethnos, the Company ensures the achievement of the following goals and the solution of the following tasks:

- minimize the number and area of industrial sites and infrastructure facilities through implementation of the best technologies for exploration, production and transportation of oil and gas;
- minimize the negative impact on the environment, reducing emissions, effluents and waste, eliminating a man-made impact outside the areas designated for industrial facilities;
- eliminate the equipment and personnel presence and movement outside the boundaries of industrial sites and facilities designated for this purpose without proper authorization;

- arrange field operations to survey areas of proposed location of industrial sites for the presence of ethno-archeological and ethnographic objects, and if any, transfer industrial facilities outside the area, according to technological capabilities;
- ensure subsequent restoration of original natural functions of the territory, including resource capacities that preserve traditional way of life and industries of the indigenous people, through detailed survey of the areas of proposed location of industrial sites and consideration of ecosystem functions at the design stage;
- supervise observance of the code of conduct by employees working within boundaries of SPNR.

Cooperation with the Budgetary Institution of KhMAO-Yugra Numto nature park continued in 2017; under the agreement, funds were transferred for the arrangement of an ecological trail, visitor center in Numto national village, and monitoring in the nature park. Grand total of financing under the agreement exceeded RUB 13 million.

In March 2017, Interregional conference "Current state and perspectives of the specially protected natural reservations

network in the industrially developed regions" was held in connection with the 20th anniversary of Numto nature park. The conference was arranged by the Government of Khanty-Mansiysky Autonomous Okrug – Yugra and Administration of Numto nature park. Surgutneftegas provided financial support and took an active part in its preparation.

In order to organize joint work to minimize the negative impact of the Company's business activities on the hydrology of wetlands within Numto nature park and in Uvatsky District of Tyumenskaya Oblast, in 2017, OJSC "Surgutneftegas" concluded an agreement on cooperation with Federal State Budgetary Institution – State Hydrological Institute. The Institute analyzed the net of marsh water drip lines in the area where the Company production facilities are located in Numto nature park and developed the plan of actions to prevent potential disturbances in hydrological regime of the territory. As part of the implementation of the agreement with the Center for conservation and restoration of wetland ecosystems of the Institute of Forestry of the Russian Academy of Sciences, a spatial analysis was conducted on environmental risks during planning of the locations for oil production facilities in the nature park, recommendations were developed to prevent possible impact of production facilities of the Company on the marsh ecosystems within the nature park.

There are checkpoints and barrier gates in place along the Company field roads in order to protect the facilities of the fuel and energy complex and to limit unauthorized access to places of traditional residence of indigenous people.

To preserve ethnic communities and their culture, the Company adheres to the following principles when carrying out production activities in the territory of residence of the indigenous peoples of the North:

- understanding and respect for the traditions, customs and rituals forming a major part of the culture of the indigenous people;
- taking into account the experience and continuous improvement of the system

- of relations with the small-numbered indigenous peoples of the North;
- immediate reporting to the Indigenous Peoples Affairs Department of Land Use Division, Environmental Safety and Management Division of OJSC "Surgutneftegas" in the event of misunderstanding, threat of conflict or violation of the established requirements;
- conflict resolution and misunderstanding clearing up through discussion and negotiation;
- prohibition of conflicts between the employees of Surgutneftegas and the indigenous people;
- ensuring privacy of the small-numbered indigenous peoples of the North;
- adherence to environmental standards and requirements.

In 2017, a customary survey of the territory within the site area of Sacred Lake Imlor was conducted by representatives of public organizations, regulatory and supervisory bodies and local authorities, which not only resulted in lack of comments on the operation of the Company, but also in a high assessment of the ecological condition of the territory.

The high results have been achieved by the Company through implementation of a number of actions with a view to ensure water and air resources protection and prevent territories from becoming polluted with production and consumption wastes as well as oil spills. In particular, environmental monitoring of the territory is performed, 100% of oilfield pipelines in the lake area have been upgraded, and all the pipelines have inner coating.

The measures taken ensure trouble-free operation, lower the risk of accidents and incidents and, as a result, preserve game animals and wild-growing herbs which are the basis of the traditional way of living of the indigenous population.



R&D activities in the field of environmental protection

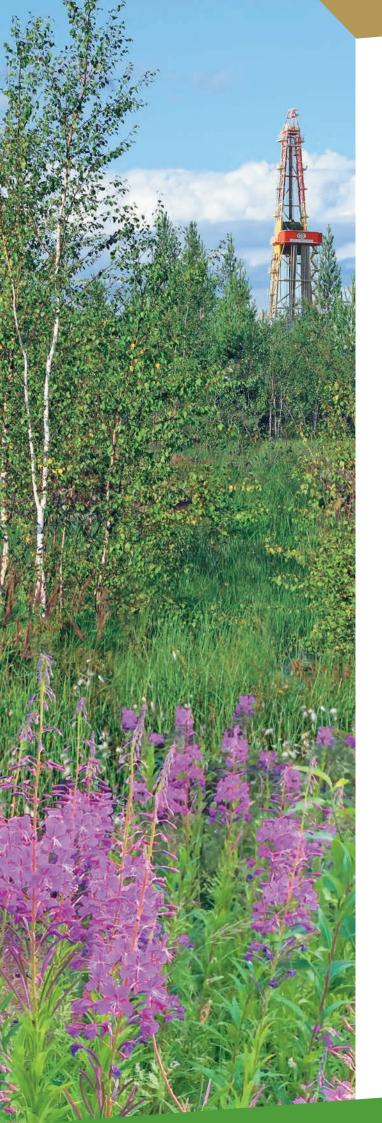
## R&D activities in the field of environmental protection

In order to improve the effectiveness of environmental measures and enhance the environmental safety system, the Company collaborates with scientific institutions and public organizations, conducts its own research and appraisal works.

In 2017, a team of scientists from Lomonosov Moscow State University, V.V.Dokuchaev Soil Science Institute and Yugansky State Nature Reserve monitored the territories of oil fields under construction within Numto nature park for the sixth year running. The purpose of the monitoring is to assess the environmental parameters of the territory, to identify ecologically significant factors affecting the biocoenosis, to track the dynamics of ecosystem change over time and predict further changes.

In the reporting year, scientists of Surgut State University carried out a detailed expedition study of biota components and performed an ecological and biological assessment of water bodies potentially suitable for use as water pits within Numto nature park. The Institute for Biological Problems and Cryolithozone, Siberian Branch of RAS, performed monitoring of bioresources and cryolithozone within the Severo-Talakanskoye, the Vostochno-Talakanskoye and the Alinskoye fields in the Republic of Sakha (Yakutia) for the third year in a row. Long-term permafrost, surface water hydrobiocenoses, soil cover, flora and fauna were studied to characterize reserves for assessing the current ecological parameters of the territory and to identify trends in the development of the ecological situation in the zone of probable impact of oil production facilities.

The results of the research will serve to make management decisions aimed at minimizing the negative impact of oil production facilities on the environment.



Cooperation with public organizations and media

### Cooperation with public organizations and media

While understanding the importance of information transparency in the modern world, Surgutneftegas pays much attention to maintaining effective interaction with public organizations and the media of regional and federal levels.

The Company mandatorily conducts public discussions of the EIA materials of the planned business activity, in which both citizens and public organizations take part. In order to obtain an independent evaluation of certain aspects of production activities, Surgutneftegas regularly interacts with national, regional and local public organizations.

In the reporting year, the work under the agreement on cooperation with All-Russia public organization "Russian bird conservation union" concluded in 2016 was continued: bird protection devices on a power line were installed, peregrine falcon population in the southern part of Numto nature park was monitored.

After considering the appeal of the State Duma member Grigory Ledkov and All-Russia public organization "Association of the small-numbered indigenous peoples of the North, Siberia and the Far East of the Russian Federation", Surgutneftegas financed the International forum "The small-numbered indigenous peoples of the North, Siberia and the Far East of the Russian Federation" that was held in the town of Salekhard from 23 to 25 March 2017.

Within the framework of interaction with the administration of Ust-Kut owing to the financial support of the Company the urban public organization "Ust-Kut 'Rosinka' children's ecological club" purchased 350 seedlings for planting over the town in 2017.

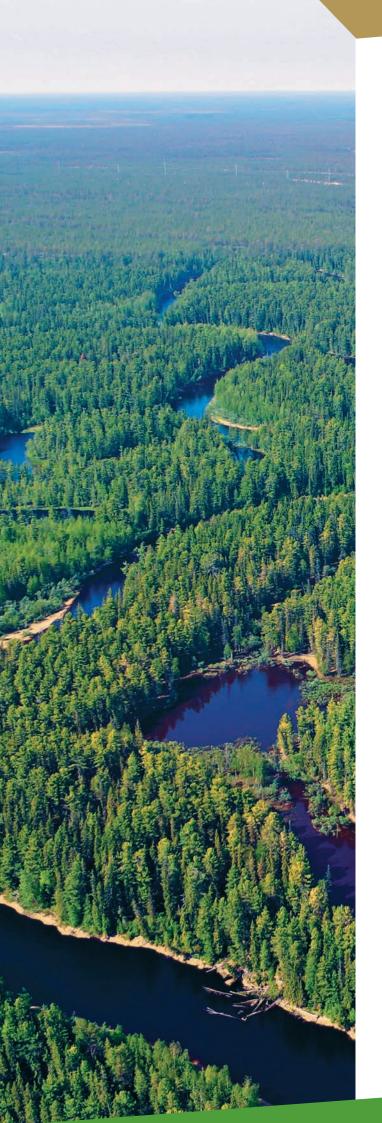
Journalists of federal and regional mass media actively talk about the current events in the Company's environmental activities, the fulfillment by the Company of its obligations under the agreements with the Directorate of Budgetary Institution Numto nature park in KhMAO-Yugra, the administration of Beloyarsky District with regard to observing the social, economic and environmental interests of the population.

OJSC "Surgutneftegas" interacts with the press on continuing basis. Correspondents, photographers, cameramen and bloggers are delivered to remote, hard-to-reach field areas by air.

In 2017, tours for the press were arranged in East and West Siberia: "Ensuring environmental safety of oil production at OJSC "Surgutneftegas" fields in the Republic of Sakha (Yakutia)" in Lensky District; "Advanced technology and equipment for safe treatment oil sludge", "Comprehensive exercises in oil spill response" in Surgutsky District.

There were a number of expeditions during the year to production facilities of OJSC "Surgutneftegas" located in Numto nature park, to nomad camps of the indigenous people and to Numto national village. Information materials for "NTV", "TVC", "OTR", "Yugra" TV channels were prepared. Articles were published on the websites of "Rossiyskaya Gazeta", "TASS", "RIA Novosti", "ROSBALT", "Argumenty Nedeli" news agencies, in "Yugra News", "Moskovsky Komsomolets-Yugra", "Surgutskaya Tribuna", "Vestnik" newspapers.

Following the press tour in Yakutia, more than two dozens of materials were published both in printed and in electronic media in the Republic of Sakha (Yakutia) and KhMAO-Yugra.



# Year of Ecology results

#### **Year of Ecology results**

In 2017, OJSC "Surgutneftegas" operation had a number of important milestones and a variety of environmental protection activities.

According to the corporate plan for the Year of Ecology, besides the 23rd gas turbine power plant (at the Yuzhno-Nyurymskoye field), the Company commissioned two major facilities for oil sludge utilization in Khanty-Mansiysky Autonomous Okrug – Yugra (at the Fedorovskoye oil and gas condensate field and at the Vatlorskoye oil field), and also low pressure separation compressor stations in the Republic of Sakha (Yakutia) – at the Severo-Talakanskoye and Alinskoye oil and gas condensate fields.

Cooperation between
OJSC "Surgutneftegas" and Numto nature
park on social and economic development
of residential areas of the small-numbered
indigenous peoples of the North in the
reporting year resulted in financing the
infrastructure construction at the park visitorcenter and in a community cleanup day in
Numto national village to plant trees and
bushes and remove scrap metal accumulated
by residents for further recycling.

Besides, Surgutneftegas financed publishing the updated monograph "Numto nature park": Nature and historical and cultural heritage" on the occasion of the 20th anniversary of this specially protected natural reservation.

In the Year of Ecology, Surgutneftegas sponsored a number of important events: the VIII Nevsky international ecological congress in St. Petersburg, the III All-Russia ecological children's festival and the II International exhibition-forum "Ecotech" in Moscow, the All-Russia action "Russia – the territory of Ecolyats – young nature defenders" and

socially-educational environmental protection projects "Ecolyata – Doshkolyata", "Ecolyata" and "Young nature defenders" in Surgutsky and Beloyarsky Districts.

With the assistance of the Company, a district action for schoolchildren called "Waste paper, surrender!" initiated by the Governor of Khanty-Mansiysky Autonomous Okrug – Yugra N.V. Komarova was held.

OJSC "Surgutneftegas" financed academic papers of Yugansky State Nature Reserve and publishing of the book "Indicator of vascular plants in Tyumenskaya Oblast" prepared by the scientists of the Tyumen Scientific Center of Siberian Branch of RAS.

In the Year of Ecology,
OJSC "Surgutneftegas" arranged dozens of
environmental protection actions: planting
of greenery, flowers, landscape improving,
cleaning of city parks and squares, sports
facilities, forests and other sites adjacent
to the settlements where the Company's
enterprises are based.

A new alley of flowering shrubs planted in honor of the 40th anniversary of the foundation of OJSC "Surgutneftegas" has become a real decoration of "Kedrovy Log" park (Surgut).

This year, experts have appreciated again the active involvement of Surgutneftegas in the field of environmental protection and rational nature management, contributing to the sustainable development of the economy and ensuring the environmental safety of this country.

OJSC "SURGUTNEFTEGAS" WINS XIII ALL-RUSSIA CONTEST "LEADER OF ENVIRONMENTAL PROTECTION IN RUSSIA – 2017" IN THE CATEGORY "BEST ENVIRONMENTALLY RESPONSIBLE COMPANY IN OIL PRODUCTION INDUSTRY"

OJSC "Surgutneftegas", "Company", "Surgutneftegas", "joint stock company" and "we" used in the text of the Environmental Report are interchangeable terms that relate to the oil and gas production sector of OJSC "Surgutneftegas".

