TILLER GROUP

430 Park Ave, 8th Floor
New York, NY 10022
United States of America

5 Manchester Square
London W1U 3PD
United Kingdom

CONTENTS

PARAMETERS AND GENERAL CHARACTERISTICS

Strategic Lines of Activity

Management, engineering, turn-key construction of oil and gas, civil and industrial facilities to meet International standards in a broad range of climatic conditions (–50° C to +50° C), production, financial-investment activity, procurement, trade and trade agent activity, leasing of vehicles and equipment, real estate management, consulting, development and adaptation of up-to-date information technologies.

Strategic Industrial Sectors (Scope of Works and Services)

Complex project engineering:

- Project management
- Design, technological and construction engineering;
- Geological prospecting testing;
- Elaboration and preparation of tender documentation.

Construction of multi-purpose pipelines:

- High and low pressure gas pipelines;
- Oil pipelines;
- Water pipelines;
- Product lines.

Construction of on-ground and special engineering facilities:

- Oil refineries and gas processing plants;
- Gas processing plants and oil refineries
- Collectors;
- Complex gas separation units;
- Compressor stations;
- Gas distribution stations;
- Oil collection and separation units;
- Pump stations;
- Oil tank farms;
- Electric power lines and cathodic protection stations;
- Remote control systems (telecommunications).

Civil and industrial construction:

- Engineering survey;
- Designing;

- Construction and installation;
- Client's and Contractor's functions;
- Reconstruction of buildings and structures;
- "Turn-key" construction.

Production of special materials, structures and parts:

- Coordination and ensuring of the operation of industrial enterprises manufacturing special materials, structures and parts for the construction of oil and gas extraction, transportation and processing facilities;
- Manufacture of steel, polyethylene and enameled pipes and fittings for pipelines;
- Manufacture of pre-fab reinforced concrete elements;
- Assembling of modular block structures;
- Timber products.

Procurement and logistics:

- Warehousing services, wholesale trade and agent services in conjunction with production-financial activity;
- Material and equipment supply;
- Provision of steel, polyethylene and enameled pipes for the oil and gas projects under construction;
- Supply to Clients the whole range of chemical industry and machine building products including welding equipment, mobile power stations, metal cutting tools, forging-pressing equipment, pipeline fittings and other technical products;

Financial-investment activity:

- Marketing of financial markets;
- Financial-investment activity on attraction of credit-investment funds;
- Coordination of the work with banks, financial-industrial groups;
- Work with the Russian issuers' shares and State securities;
- Attraction of funds into the implementation of the RNGS projects and programs;
- Services for repayment of Clients' debts to the RNGS daughter companies and founding enterprises.

Leasing of vehicles and equipment:

- Leasing (local and international) of equipment and vehicles (including equipment, machinery and vehicles for the oil and gas complex);
- Consulting services on introduction of up-to-date technologies, high capacity local and imported equipment;
- Servicing of vehicles and equipment, development of perspective forms and structures on maintenance and repair of the equipment on lease;
- Selection and training of service personnel to work on the rented construction equipment and machinery;
- Purchase of imported of multi-purpose equipment, components, spare parts, consumables, equipment, vehicles, buildings, structures, production facilities, warehouses etc. To be used by the lessee;
- Marketing research of the Russian and international markets of the machine building industry;
- Trade and trade agent activity;
- Local and export supply of crude oil, gas condensate, natural gas and oil products;
- Local, export and import of technical and industrial products.

Real estate management:

- Leasing (local and international) of enterprises and other property complexes, buildings, and other real estate which can be used for business operations;
- Real estate management (maintenance, operation, leasing);
- Property management as a trust manager for the Ministry of the State Property of the Russian Federation.

Ecological safety:

- Ecological follow-up of projects;
- Geo-ecological monitoring of oil and gas field development territories;
- Assessment of ecological impact on environment (AEIE) at the stage of environmental protection designing;
- Simulating of ecologically extreme situations in the process of construction and operation of oil and gas facilities;
- Evaluation of the damage to environment caused by accidents and failures at the oil and gas extraction, transportation, storage, processing and refining facilities;

- Ecological expertise of projects;
- Rehabilitation of disturbed territories including zones of oil product contamination;
- Ecological certification of oil and gas facilities and construction procedures;
- Waste decontamination, removal and recovery;
- Re-training and ecological certification of personnel.

Consulting:

- Management-consulting on the following issues: strategic development of enterprises, property acquisition, restructuring of enterprises;
- Consulting on financial issues (Audit, taxes, accounting, credits and loans, insurance, evaluation of enterprise and business capitalization);
- Consulting on staff management; employment (selection and assessment of executive staff, training (re-training and education), modernization of labor payment system, social security, career promotion;
- Legal and economic-juridical follow-up of industrial and social aspects of activity.

Development and adaptation of up-to-date information technologies and techniques:

- Information analyses support;
- Publishing-editing and printing activity;
- Advert-presentation services;
- Corporate information telecommunication network hooking-up;
- Development of new and adaptation of existing information technologies and techniques for business practices;
- Consulting and training on the use of hard and soft ware and information practices.

Security support for the RNGS project and program implementation:

- Protection of property owners including property transportation;
- Checking and monitoring communication lines to reveal information leak, search for bugging devices;
- Designing, supply and installation of integrated security systems, including TV observation and tracking, alarm devices, entrance control etc.;
- Consulting and preparation of recommendations on legitimate protection against unlawful and criminal action;

- Assistance to law enforcement authorities to maintain public order (including contractual basis).

- **Project management:**

  Expertise and consultation services;
  Pre-investment studies and research;
  Business-plan preparation;
  Project feasibility studies;
  Organization of financing investment projects;
  Project products marketing;
  Investment projects marketing;
  Evaluation of investment projects efficiency;
  Management of project risks;
  Project planning, designing, organization and management;
  Determination of project duration, estimation of resource requirements;
  Financial monitoring of projects;
  Procurement and logistics;
  Purchases and supplies for projects on a tender basis;
  Project control and regulating;
  Organization of a project team and manpower management;
  Quality assurance and control;
  Introduction of state-of-art construction procedures.

- **Design, technological and construction engineering:**

  Pre-design studies and conclusions;
  Drawing-up of licenses, approvals and permits;
  Determination of investment tasks and feasibility studies for construction;
  Obtaining and elaboration of initial data for design;
  Preparation of project estimates documentation;
  Organization of detailed engineering and supervision;
  Study of investment projects on the basis of geo-information systems;
  Topographic-cartographic, engineering-geological and geo-ecological survey;
  Project technical follow-u and support;
  Supervision over construction operations;
  Provision of "know-how", organization of technological equipment supplies;
  Personnel training;
  Assistance in production management;
  Operation of a facility during guarantee period;

Organization of construction management;

Construction quality inspection and control;

Project commissioning;

Optimization of technological procedures.

- **Preparation of bidding documentation for tenders:**

Preliminary research and investigation;

Drawing up of pre-qualification documentation;

Bid drawing up;

Assistance in tender procedure;

Elaboration of terms and conditions for pre-qualification selection of bidders;

Offer expertise;

Provision of recommendations on determination of tender winners;

Consultations on contract terms and conditions.

- **Agent (intermediary) works and services in construction sector.**
- **Client and general contractor functioning.**

- **Administration and management of trunk pipeline construction.**
- **Procurement and logistics.**
- **Survey works and trunk pipeline design.**
- **Preparation works.**
- **Earth-moving works.**
- **Electric arc welding of trunk and gathering pipelines:**
  Pipe section assembling before welding;
  Manual electric arc welding of pipe girth joints;
  Double (triple) joint submerged automatic arc welding at welding yards;
  Single-side submerged automatic arc welding at welding stations;
  Automatic field pipe butt welding of pipes with powder wire with forced weld formation;
  Automatic electric arc gas-shielded welding;
  Flash-butt resistance welding;
  Special welding works;
  Welded joint repair.
- **Transportation and load handling.**
- **Pipeline corrosion protection with coating and pipeline insulation:**
  Corrosion protection works in field conditions;
  Applying coating on pipes and pipe sections in factory conditions;
  Welded joint coating in plant and field conditions;
  Repair of damaged corrosion protection coating.
- **Pipeline laying.**
- **Pipeline crossing of natural and artificial obstacles:**
  Earth-moving works at underwater crossing construction;
  Laying of underwater pipeline crossings;
  Crossing minor water obstacles;
  Communication cables at underwater trunk pipeline crossings;
  Cased (“pipe in pipe”) pipelines;
  Embankment works at underwater crossing construction.
- **Pipeline construction under difficult climatic conditions.**
- **Cathodic protection of pipelines from underground corrosion:**
  Construction and installation of cathodic protection systems;
  Start-up and adjustment of cathodic protection systems.
- **Ballasting and anchoring of pipelines.**
- **Installation of cable communication lines on trunk pipelines:**
  Cable line crossing of natural and artificial obstacles;

Unserviced amplifying points;

Earthings;

Installation-measurement works;

Construction of 6-10kW power lines on gathering and trunk pipelines.

- **Pipeline internal cleaning and testing.**
- **Quality control and work acceptance:**

Quality control of preparation works;

Quality control of earth moving works;

Acceptance, rejection and certification of pipes, pipe fittings and valves;

Quality control of welded joints;

Control over coating condition and acceptance of cathodic protection installed and completed;

Quality control of ballasting works (r/c weights);

Control over internal pipeline cleaning, strength and sealing;

Technical investigation of failures during pipeline testing.

- **Environmental protection.**
- **Start-up and adjustment:**

Elaboration of pre-commissioning and start-up and adjustment procedures;

Preparation, pre-commissioning, start-up and adjustment operations;

Testing of working characteristics;

Start-up and adjustment reports.

- **Commissioning of pipelines completed.**

- **Design works:**
  Architectural design;
  Construction design and engineering;
  Design of service networks and systems;
  Technological design.

- **Production of construction materials, structures and finished products:**
  Production of construction materials;
  Production of steel structures and finished products.

- **Preparation works:**
  Surveys;
  Cleaning and drainage of sites;
  Demolition of buildings and disassembling of structures;
  Drilling and explosion works;
  Installation of temporary buildings and other facilities;
  Construction of access roads, pavements and crane railways.

- **Earth-moving works:**
  Grading and leveling;
  Soil excavation;
  Soil reinforcement and compaction;
  Installation of drainage systems and stone and rock structures.

- **Construction and installation works:**
  Foundations and concrete filling;
  Piles;
  Erection of bearing structures and fencing for buildings and other facilities;
  Installation of metal structures;
  Internal service systems:
    - Water and gas supply networks;
    - Sewage;
    - Heating.

  External service systems:
    - Manholes, sites, end manifolds and chambers and culverts;
    - Power line supports, power lines for industrial and urban transportation means;
    - Power distribution lines;
    - Construction of pipelines crossing external service systems, including trunk gas, oil and product pipelines;
    - Valves;
    - Plumbing equipment;
    - Heating networks;
    - Gas supply networks;

- Water supply networks.

Protection of structures and equipment;
Finishing works for structures and equipment;
Road construction;
Installation of technological equipment:

- Load lifting equipment;
- Elevators;
- Crashing and milling equipment;
- Boiling units and auxiliaries;
- Finishing works in buildings.

- **Repair and maintenance works:**

Repair of buildings and concrete structures;
Road repair.

- **Electrical part and instrumentation:**

Instrumentation and supervision;
Communications;
Electric and mechanical works indoors;
Power cables;
Power supply lines;
Cathodic protection;
Supports for power supply lines;
Fire alarm systems.

- **Production of steel pipes.**
- **Production of polyethylene pipes.**
- **Production of enameled steel pipes.**
- **Coating of steel pipes with polyethylene.**
- **Production of pipeline steel parts: connection joints (fittings), elbows, T-joints, reducers, plugs, flanges.**
- **Production sectional r/c structures.**
- **Production of light steel structures for fast-installed industrial and ancillary buildings.**
- **Production of heavy modules for oil and gas and industrial construction.**
- **Production of PVC tapes, multi-purpose molded articles and polyethylene pallets.**
- **Production of 3-layer frameless "Sandwich"-type panels.**
- **Processed timber products.**
- **Procurement:**

  Welding equipment;

  Mobile power stations;

  Metal-cutting machine tools;

  Forging-forming equipment;

  Cables;

  Aluminum towers for radio-relay communication etc.

PROJECT EXPERIENCE

Project Brief Description	*Country / Area*	*Customer*	*Construction Period*		*Total Cost Million USD*	*Scope of works*
			Start	*Completion*		
I. Pipeline construction **1. Gas Pipelines**						
Gas trunk pipeline Chernyshevsk-Ajhal-Udachny D 530 mm L 170 km	Russia Yakutia	ALROCA	1999	2001	10	Project management, construction, start-up and adjustment
Gas trunk pipeline Nuksenitsa - Archangelsk Branch lines to Severodvinsk - 61 km, Verkhovazhje - 51 km, Novodvinsk - 10 km, Archangelsk - 2 km, D 720 - 219 mm	Russian European north	Gazprom (Severgazprom)	1999	2003	600	Project management, construction, start-up and adjustment
Gas trunk pipeline Russia-Turkey “Blue Stream” the Russian part of the line D 1420 mm L 260 km	Russia	Gazprom (Stroitransgaz)	1999	2000	55	Project management, construction, start-up and adjustment
A part of the gas trunk pipeline Yamal – Europe D 1420 mm, L 150 km	Russia, Belarus	Gazprom (Stroitransgaz)	1998	2000	76.8	Project management, construction, start-up and adjustment
Gas pipeline branch line Salekhard - Labytnangi – Kharp D 700 mm, L 60 km	Russia	Gazprom (Yamalgazprom)	1996	1999	52,3	Project management, construction, start-up and adjustment
A part of the trunk pipeline Zapolyarnoye – Urengoy D 1420 mm, L 58 km	Russia	Gazprom (Stroitransgaz)	1995	1999	21.8	Project management, construction, start-up and adjustment
Gas pipeline Gorky - Center - CS Serpukhovskaya D 1220 mm, L 40 km	Russia	Gazprom (Mostransgaz)	1996	1998	78,6	Project management, construction, start-up and adjustment
A part of gas trunk pipeline Peregrebnoe - Punga – Ukhta D 1420 mm L 192 km	Russia	Gazprom (Severgazprom)	1995	1998	83,9	Engineering, feasibility study, project management, construction, start-up and adjustment
Gas trunk pipeline Torzhok – Dolina L 1311 km, D 1420 mm	Russia, European part	Gazprom	1994	1998	1750	Engineering, project management, construction, start-up and adjustment
Gas trunk pipeline Tula – Torzhok L 519 km, D 1220 mm	Russia, European part	Gazprom	1994	1998	590	Engineering, project management, construction, start-up and adjustment
Gas trunk pipeline		Gazprom	1993	1998	41.9	Engineering, project man-

Project Brief Description	Country / Area	Customer	Construction Period		Total Cost Million USD	Scope of works
			Start	Completion		
Yelets – Novopskov D 1220 mm, L 52 km	Russia	(Mostransgaz)				agement, construction, start-up and adjustment
Gas trunk line Northern Tumen oblast – Torzhok L 2456 km, D 1420 mm	Russia, Western Siberia, European part	Gazprom	1993	1998	3,800	Engineering, project management, construction, start-up and adjustment
Trunk gas pipeline Northern Tumen oblast – Urals L 1740 km, D 1420 mm	Russia, Western Siberia	Gazprom	1993	1997	2,200	Engineering, project management, construction, start-up and adjustment
Trunk gas pipeline Volkhov – Petrozavodsk L 284 km, D 720mm	Russia, European part	Gazprom	1995	1997	250	Engineering, project management, construction, start-up and adjustment
Trunk gas pipeline Novosibirsk – Barnaul L 615 km, D 720 mm	Russia, Central Siberia Eastern Siberia	Gazprom	1995	1997	480	Engineering, project management, construction, start-up and adjustment
Trunk gas pipeline Novosibirsk – Kuzbass D 1020, L 459	Russia	Gazprom	1995	1997	378	Engineering, project management, construction, start-up and adjustment
Trunk gas pipeline Pochinki – Izobilnoe D 1420 mm, L 526 km	Russia	Gazprom	1995	1997	587	Engineering, project management, construction, start-up and adjustment
Rehabilitation and restoration of branch gas pipelines and networks in Chechnya D 219 -529 mm, L 138 km	Russia, Northern Caucasus	RNGS	1995	1997	25	Engineering, feasibility study, project management, construction, start-up and adjustment
Trunk gas pipeline Taganrog – Mariupol L 31 km, D 1020 mm	Russia	Gazprom (Mostransgaz)	1994	1996	28.1	Engineering, project management, construction, start-up and adjustment
Branch gas pipeline to Kushchevskii PHG D 1020 mm, L 27 km	Russia	Gazprom (Kubangazprom)	1994	1996	27.2	Engineering, project management, construction, start-up and adjustment
Trunk gas pipeline Yelets - Kremenchug - Krivoi Rog D 1420 mm, L 621 km	Russia	Gazprom	1994	1996	640	Engineering, project management, construction, start-up and adjustment
Gas pipeline Cheboksary - Northern Caucasus crossing 6 rivers, D 1420 mm, L 4978 km	Russia	Yuzhtrubo-provodstroi	1994	1996	27.5	Engineering, feasibility study, project management, construction, start-up and adjustment

Project Brief Description	*Country / Area*	*Customer*	*Construction Period*		*Total Cost Million USD*	*Scope of works*
			Start	*Completion*		
Gas pipeline system Northern Caucasus – Center D 1200 mm, L 90 km	Russia	Gazprom (Mostransgaz)	1990	1995	91,1	Engineering, project management, construction, start-up and adjustment
Trunk gas pipeline Griazovets – Yaroslavl D 1420 mm, L 188 km	Russia	Gazprom	1990	1992	262	Engineering, project management, construction, start-up and adjustment
Trunk gas pipeline Yamburg - Volga region D 1420 mm, L 1982 km	Russia	Gazprom	1987	1990	2,768	Engineering, project management, construction, start-up and adjustment
Transcontinental trunk gas pipeline Yamburg - Western border D 1420 mm, L 1982 km Compressor stations, infrastructure	Russia	Ministry for gas industry of the USSR	1986	1988	1,398	Engineering, feasibility study, equipment and materials supply, project management, construction, start-up and adjustment
Transcontinental trunk gas pipeline Urengoi - Pomary – Uzhgorod Compressor stations, infrastructure	Russia	Ministry for gas industry of the USSR	1982	1984	1,650	Engineering, feasibility study, equipment and materials supply, project management, construction, start-up and adjustment

Project Brief Description	*Country / Area*	*Customer*	*Construction Period*		*Total Cost Million USD*	*Scope of works*
			Start	*Completion*		
2. Oil Pipelines						
Oil pipeline Yurubchen – Karabula D 530 mm, L 317 km	Russia, Eastern Siberia	RNGS	1999	2002	182	Engineering, project management, construction, start-up and adjustment
Rehabilitation and extension of oil pipeline system Baku – Tikhoretsk D 720 mm, L 312 km	Russia, Northern Caucasus	OAO Chenomortransneft	1998	1999	250	Engineering, project management, construction, start-up and adjustment
Complete rehabilitation of the trunk oil pipeline Kuibyshev - Tikhoretsk - I, II D 820 mm, L 80 km	Russia, European part	Privolzhskie Magistralnye Nefteprovody	1996	1998	46.4	Project management, construction, start-up and adjustment
Oil pipeline system Tikhoretsk - Novorossijsk - I, II D 530 mm, L 90 km	Russia	AO Chernomorneft	1996	1997	33.8	Project management, construction, start-up and adjustment
Rehabilitation of oil pipelines in the Republic of Ingushetia L 43 km	Russia, Northern Caucasus	RNGS	1996	1997	13.2	Engineering, project management, construction, start-up and adjustment
Rehabilitation of oil pipeline Ust-Balyk - Omsk - Irkutsk (loopings) D 1220 mm, L 418 km	Russia, Central Siberia, Eastern Siberia	AK Transneft	1995	1997	250	Project management, construction, start-up and adjustment
Rehabilitation of oil pipelines in the Republic of Northern Osetia L 41 km	Russia, Northern Caucasus	RNGS	1995	1997	1.4	Engineering, project management, construction, start-up and adjustment
Construction of oil pipeline Khariaga - Usa, D 720 mm, L 110 km Rehabilitation of oil pipeline Usa – Ukhta, crossing the Usa river	Russia	USMN	1994	1997	63.3	Engineering, project management, construction, start-up and adjustment
Oil pipeline Almetievsk - Gornyj, crossing the Volga and Kama rivers, D 820 mm, L 20690 m	Russia	Severo-Zapadnye Magistralnye Nefteprovody	1994	1997	16.8	Project management, construction, start-up and adjustment
Oil pipeline Tikhoretsk - Tuapse - Novorossijsk, crossing 6 rivers, D 530 mm, L 8137 m	Russia	Yuzhtrubo-provodstroi	1993	1997	4.8	Project management, construction, start-up and adjustment
Oil pipeline system Lisichansk – Tikhoretsk D 720 mm, L 14 km	Russia	AOOT PKMN	1996	1996	7.8	Project management, construction, start-up and adjustment
Oil pipeline system	Russia	AOOT PKMN	1995	1996	16.1	Engineering, project man-

Project Brief Description	*Country / Area*	*Customer*	*Construction Period*		*Total Cost Million USD*	*Scope of works*
			Start	*Completion*		
Malgobek – Tikhoretsk D 720 mm, L 30 km						agement, construction, start-up and adjustment
Rehabilitation of oil pipelines in the Republic of Checnya, L 615 km	Russia, Northern Caucasus	Ministry for Fuel and Energy of Russia	1995	1996	23.3	Engineering, project management, construction, start-up and adjustment
Oil pipeline Buguruslan - Syzran, crossing 2 rivers, D 720 mm L 1600 km	Russia	Privolzhskie Magistralnye Nefteprovody	1995	1996	1.9	Project management, construction, start-up and adjustment
Oil pipeline Pavlodar - Chimkent, crossing the Irtysh river, D 1220 mm, L 3027 m	Kazakhstan	KazakhNPU	1993	1994	6.9	Engineering, feasibility study, project management, construction, start-up and adjustment
Transcontinental oil pipeline SRTO - European part of Russia, pump stations, D 1420 mm, L 2426 km	Russia	Ministry for Oil Industry of the USSR	1983	1986	468	Engineering, project management, construction, start-up and adjustment

Project Brief Description	*Country / Area*	*Customer*	*Construction Period*		*Total Cost Million USD*	*Scope of works*
			Start	*Completion*		
3. Other Pipelines						
Rehabilitation of water pipeline in the Republic of Northern Osetia, L 20 km	Russia, Northern Caucasus	Local administration	1995	1997	1.9	Engineering, feasibility study, project management, construction, start-up and adjustment
Condensate pipeline Urengoi – Surgut D 720, L 696 km	Russia, Western Siberia	Gazprom	1995	1997	440	Project management, construction, start-up and adjustment
Product pipeline Samara – Briansk 2 lines crossing the Volga river, D 530 mm, L 14116 m	Russia	Yugo-Zapadnye Magistralnye Nefteproduk-toprovody	1994	1997	7.3	Project management, construction, start-up and adjustment
Water pipeline in the Republic of Ingushetia, D 800 mm, L 120 km	Russia, Northern Caucasus	Ingushvodostroi	1995	1996	41.1	Engineering, project management, construction, start-up and adjustment
Construction of water pipeline North - South, D 1220 mm, L 30 km	Russia, Bashkiria	Ufavodokanal	1994	1995	24.4	Project management, construction, start-up and adjustment
Construction of water pipeline for Izyak water take-off	Russia, Bashkiria	AO Khimvo-lokno	1991	1994	12.5	Engineering, project management, construction, start-up and adjustment
Condensate pipeline Orenburg – Salavat – Ufa D 530 mm, L 263 km	Russia, European part	Gazprom	1991	1993	42.4	Engineering, project management, construction, start-up and adjustment
Water pipeline Astrakhan – Mangyshlak D 1220 mm, L 652 km	Russia, European part	Ministry for Oil Industry	1988	1990	536	Project management, construction, start-up and adjustment

Project Brief Description	*Country / Area*	*Customer*	*Construction Period*		*Total Cost Million USD*	*Scope of works*
			Start	*Completion*		
II. Oil and gas facilities						
Caspian Pipeline Consortia (CPC) Construction of Komsomolsk, Kropotkin and Astrakhan pump stations	Russia	CPC	1999	2001	70	Project management, construction, start-up and adjustment
Development of the Yurubchen oil and gas field	Russia	ESOC, RNGS	1999	2001	188	Prospecting and pilot drilling, development, infrastructure
Construction of oil refinery in Tobolsk, Tymen region, 1 mln tons capacity	Russia	Modular Processing Technologies, USA	2000	2001	55	Engineering, construction
Construction of oil refinery in Novoshakhtinsk, Rostov region, 1 mln tons capacity	Russia	Modular Processing Technologies, USA	2000	2001	55	Engineering, project management, construction, start-up and adjustment
Rehabilitation of the oil complex in Chechen Republic, repair works on the Braguny Central Oil Station	Russia	Rosneft	2000	2000	0.7	Repair and rehabilitation work
Kushchevskaya pump station for 5 units (compressor unit, refrigeration unit, drying unit, gas preparation unit, measurement station, site communications, cables)	Russia	GP Kubangazprom	1997	1998	20.4	Project management, construction, start-up and adjustment
Federal gazification program, D 159-529 mm, L 7200 km	Russia	Local administrations	1996	2001	288	Project management, construction, start-up and adjustment
Construction of a compressor station at Pilninskaya for Yamburg - Tula-II gas pipeline	Russia, Nizhegorodskaya oblast	Volgotransgaz	1995	1998	2.1	Engineering, project management, construction, start-up and adjustment
Rehabilitation of cathodic protection of pipelines in Chechen Republic, L 260 km	Russia, Northern Caucasus	RNGS	1996	1997	0.4	Engineering, project management, construction, start-up and adjustment
Construction and rehabilitation of tank farms in the Chechen Republic	Russia, Northern Caucasus	RNGS	1995	1997	45.5	Project management, construction, start-up and adjustment
Construction and rehabilitation of tank farm in the Republic of Ingushetia	Russia, Northern Caucasus	RNGS	1995	1997	33.7	Project management, construction, start-up and adjustment
Rehabilitation of compressor and pump stations	Russia,	RNGS	1995	1997	18.5	Engineering, project man-

Project Brief Description	*Country / Area*	*Customer*	*Construction Period*		*Total Cost Million USD*	*Scope of works*
			Start	*Completion*		
in the Chechen Republic	Northern Caucasus					agement, construction, start-up and adjustment
Rehabilitation of compressor and pump stations in the Republic of Ingushetia	Russia, Northern Caucasus	RNGS	1995	1997	2.2	Engineering, project management, construction, start-up and adjustment
Rehabilitation of oil fields' infrastructure in the Republic of Ingushetia	Russia, Northern Caucasus	RNGS	1995	1997	5.7	Engineering, project management, construction, start-up and adjustment
Rehabilitation of oil fields' infrastructure in the Republic of Northern Osetia	Russia, Northern Caucasus	RNGS	1995	1997	11.2	Engineering, project management, construction, start-up and adjustment
Construction of oil tank farm in the city of Nalchik in the Republic of Kabardino-Balkaria	Russia, Northern Caucasus	RNGS	1995	1997	19.5	Engineering, project management, construction, start-up and adjustment
Construction of oil product loading station in the town of Prokladnoe, the Republic of Kabardino-Balkaria	Russia, Northern Caucasus	RNGS	1995	1997	30.3	Engineering, project management, construction, start-up and adjustment
Construction of tank farm at Nurlino Capacity - 120,000 m^3	Russia, Bashkiria	AK Transneft	1995	1997	4.0	Engineering, project management, construction, start-up and adjustment
Construction of compressor stations within the trunk gas pipelines of Yamburg: Yamburgskaya - 80,000 kW Nydinskaya - 64,000 kW Yagelnaya - 64,000 kW Pangody - 160,000 kW	Russia, Tumenskaya oblast	Gazprom (Severgazprom)	1995	1997	668	Project management, construction, start-up and adjustment
Rehabilitation of refineries in the city of Grozny	Russia, Northern Caucasus	RNGS	1995	1996	27.2	Project management, construction, start-up and adjustment
Rehabilitation of infrastructure at oil fields in the Chechen republic.	Russia, Northern Caucasus	RNGS	1995	1996	118.1	Project management, construction, start-up and adjustment
Rehabilitation of infrastructure at oil fields in the Republic of Kabardino-Balkaria	Russia, Northern	RNGS	1995	1996	7.4	Engineering, project management, construction,

Project Brief Description	*Country / Area*	*Customer*	*Construction Period*		*Total Cost Million USD*	*Scope of works*
			Start	*Completion*		
	Caucasus					start-up and adjustment
Gazification of civil projects in the Chechen republic	Russia, Northern Caucasus	RNGS	1995	1996	2.4	Feasibility study, project management, construction, start-up and adjustment
Kushchevskaya compressor station with 8 units (compressor unit, cooling, drying, and gas preparation units, measurement station, communications, cables)	Russia	GP Kubangazprom	1994	1996	32.5	Engineering, project management, construction, start-up and adjustment
Development of the Kharvutinskii gas field, annual production of 20 bln m^3, Gas preparation unit - 15 bln m^3 per annum	Russia, Tumenskaya oblast	Gazprom (Severgazprom)	1993	1995	20.0	Engineering, project management, construction, start-up and adjustment
Construction of Volkhovskaya compressor station	Russia	Gazprom	1992	1995	6.5	Project management, construction, start-up and adjustment
Developmenmt of gas field in Astrakhan: setting up UKPG, construction of gathering pipelines	Russia, European part	Gazprom	1983	1995	42.6	Feasibility study, project management, construction, start-up and adjustment
Construction of compressor stations within the system of trunk gas pipelines in Yamburg: Novopelymskaya, Lukoyanovskaya, Yagelnaya, Sosnovskaya, Novokomsomolskaya	Russia, Western Siberia	Gazprom	1994	1995	525	Project management, construction, start-up and adjustment
Mobile caravan manufacturing plant with capacity of 144,000 square meters	Russia, Tatarstan, Bugulma	Tatnefteprovod-stroi	1990	1994	24.4	Project management, construction, start-up and adjustment
Construction of pump stations: Komsomolskaya, Ishcherskaya, Astrakhanskaya, Lisichanskaya	Russia	AK Transneft	1989	1994	106	Engineering, project management, construction, start-up and adjustment
Construction of compressor station	Russia, Udmurtia	Gazprom (Permtransgaz)	1992	1994	8.0	Project management, construction, start-up and adjustment
Refinery with capacity of 6 mln tons annually	Russia, Tumenskaya oblast	Rosneftegaz	1990	1993	23.0	Feasibility study, project management, construction, start-up and adjustment
Development oil fields: Kamennoe, Komsomolskoe, Vostochno-Yelovoe, Tianskoe, Ai-Pimskoe, Zapadno-Purpeiskoe	Russia, Western Siberia	Ministry for Oil Industry	1988	1993	672	Project management, construction, start-up and adjustment

Project Brief Description	*Country / Area*	*Customer*	*Construction Period*		*Total Cost Million USD*	*Scope of works*
			Start	*Completion*		
Construction of Khokhlinskaya pump station	Russia, Kurganskaya oblast	AK Transneft	1988	1992	7.0	Engineering, project management, construction, start-up and adjustment
Gas holders, 4.6 b m^3	Russia	Rosneftegaz	1986	1991	20.0	Engineering, project management, construction, start-up and adjustment
Refinery for Yamburg gas field, throughput of 26.5 b m^3	Russia, Tumenskaya oblast	Ministry for Gas Industry of the USSR	1988	1989	27.6	Engineering, project management, construction, start-up and adjustment
Construction of Komsomolskaya pump station at Tengiz - Guriev - Astrakhan - Grozny oil pipeline	Russia	AK Transneft	1989	1991	5.5	Project management, construction, start-up and adjustment
Construction of pump stations: Rodionovka, Luganskaya	Russia	Ministry for Oil Industry	1984	1985	34.5	Engineering, project management, construction, start-up and adjustment
Gas condensate processing plant with throughput of 4.5 m tons	Russia, Surgut	Ministry for Gas Industry of the USSR	1982	1985	25.5	Engineering, project management, construction, start-up and adjustment

Project Brief Description	*Country / Area*	*Customer*	*Construction Period*		*Total Cost Million USD*	*Scope of works*
			Start	*Completion*		
III. Industrial and Civil Construction						
"Dwellings of Moscow" program: construction of 450,000 m^2 of dwellings with underground parking, shops and health centers	Russia, Moscow	RNGS	1998	2001	700	Engineering, project management, construction, start-up and adjustment
Waste water treatment station	Russia, Moscow	Moscow Government	1999	2001	7	Engineering, project management, construction, start-up and adjustment
Civil construction in the Chechen Republic, repair and restoration works	Russia, Northern Caucasus	RNGS	1995	1998	25	Engineering, project management, construction, start-up and adjustment
Moscow Round Highway Rehabilitation	Russia, Moscow	Moscow Government	1995	1998	45	Project management, construction
Setting up infrastructure for residential area Yuzhnaya-D in Tver: communications, heating lines, water supply, gas pipeline, gas distribution station, motorway	Russia, Tver	Administration of the city of Tver	1996	1997	6.25	Engineering, project management, construction, start-up and adjustment
Residential area of 12.5 hectares with 150 houses in the Republic of Ingushetia	Russia, Northern Caucasus	Government of Ingushetia	1996	1997	6.5	Engineering, project management, construction, start-up and adjustment
Construction of Highway Beirut - Tir	Beirut, Lebanon	General Construction Company	1995	1996	25	Engineering, project management, construction
Construction of residential and other civil facilities of 480,000 m^2 total area	Russia, Western Siberia	Local administrations	1994	1996	240	Engineering, project management, construction, start-up and adjustment
Construction of a 45,000 m^2 residential area with kindergarten, school, shops and health center	Russia, Rostov Region, Millerovo	Ministry of Defense of Russia	1993	1994	52.4	Engineering, project management, construction, start-up and adjustment
Renovation of the Russian House of Government	Russia, Moscow	Government of Russia	1993	1994	2.5	Project management, construction, start-up and adjustment
Construction of residential premises in the Western Siberia with total area of 9 mln m^2	Russia, Tyumen Region	Local administrations	1981	1990	43,000	Engineering, project management, construction, start-up and adjustment
Federal program "My home": construction of dwellings in Surgut with total area of 3.5 mln m^2	Russia, Tyumen Region	Administration of the city	1977	1989	18,000	Engineering, project management, construction,

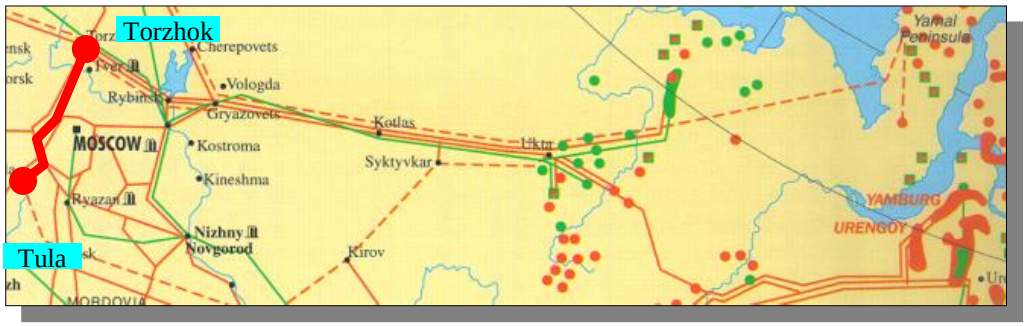
Project Brief Description	*Country / Area*	*Customer*	*Construction Period*		*Total Cost Million USD*	*Scope of works*
			Start	*Completion*		
		of Surgut				start-up and adjustment
Construction of 18-storey RNGS office building with total area of 25,000 m^2 with sporting and recreational facilities, 650-person conference hall and underground garage	Russia, Moscow	Ministry of Oil and Gas Construction of the USSR	1977	1980	65	Engineering, project management, construction, start-up and adjustment

Project Brief Description	*Country / Area*	*Customer*	*Construction Period*		*Total Cost Million USD*	*Scope of works*
			Start	*Completion*		
IV. Oil and gas facilities outside Russia						
Oil pipeline, Western Ayad - coast of the Aden Bay, D 530 mm, L 204 km, oil tank farm, terminal, 100,000 tons capacity	Yemen	Ministry for Foreign Economic Relations (MVES)	1988	1991	32	Project management, construction, start-up and adjustment
Desalination and dehydrating facilities	Kuwait	MVES	1989	1990	6	Project management, construction, start-up and adjustment
Water pipeline Devna - Varna, D 1220 mm, L 35 km, Water pipeline for Mandra irrigation system, D 1220 mm, L 17 km. Water pipeline to the city of Tolbukhin	Bulgaria	MVES	1987	1990	15	Project management, construction, start-up and adjustment
Gas pipeline Nasiria - Baghdad, D 1020 mm, L 571 km, compressor station 2 × 10 MW turbines	Iraq	MVES	1986	1990	47	Project management, construction, start-up and adjustment
Gas pipeline Marsa El Brega - Missurata, D 860 mm, L 571 km Compressor station 6 × 2.8 MW turbines, gas measuring and pressure reducing station at Brega - Zuetina gas pipeline	Libya	MVES	1980	1988	101	Project management, construction, start-up and adjustment
Gas pipeline Kuovolo - Tampere, D 700 mm, L 89 km, D 500 mm, L 92 km, D 406 mm, L 96 km	Finland	MVES	1984	1986	16.3	Project management, construction, start-up and adjustment
Gas pipeline Alrar - Khassi - Messaud, D 1220 mm, L 421 km, D 1070 mm, L 232 km. On-ground facilities at the southern section of the Khassi - Mel - Azrev gas pipeline	Algeria	MVES	1983	1986	82	Project management, construction, start-up and adjustment
Condensate processing plant, Dzharkuduk deposit, capacityof 4 mln tons of gasoil	Afghanistan	MVES	1984	1986	2.2	Engineering, project management, construction, start-up and adjustment


OIL AND GAS MAP OF THE FORMER SOVIET UNION
GERMANY
SWEDEN
GULF OF BOTHNIA
BALTIC SEA
FINLAND
POLAND
BELARUS
UKRAINE
ROMANIA
BLACK SEA
TURKEY
GEORGIA
ARMENIA
AZERBAIJAN
CASPIAN SEA
KAZAKHSTAN
TURKMENISTAN
UZBEKISTAN
KYRGYZSTAN
TAJIKISTAN
IRAN
AFGHANISTAN
MONGOLIA
CHINA
NORTH KOREA
SOUTH KOREA
SEA OF JAPAN
JAPAN
BARENTS SEA
KARA SEA
LAPTEV SEA
EAST SIBERIAN SEA
BERING SEA
SEA OF OKHOYSK
LAKE BAIKAL
ARAL SEA
LAKE BALKHASH
WHITE SEA
LAKE OMEGA
SHELIKHOVA BAY
Kamchatka Peninsula
Gydan Peninsula
Yamal Peninsula
Karaginskiy I
Paramushir
Sakhalin
Urup
Iturup
Kunashir
Habomai Is
"Occupied by Russia, claimed by Japan
TALLINN
RIGA
VILNIUS
MINSK
KIEV
MOSCOW
St Petersburg
MURMANSK
N KILDIN
LUDLOV
SHTOKMANOV
RUSANOV
YAMBURG
URENGOY
NORILSK
ASTRAKHAN
KARACHAGANAK
TENGIZ
BAKU
TBILISI
YEREVAN
ASHKHABAD
TASHKENT
BISHKEK
ALMATY
DUSHANBE
Oil field/s
Oil pipeline/s
Gas field/s
Gas pipeline/s
Pipeline under construction or planned
Oil refinery
Oil refinery under construction or planned
Tanker terminal
SOURCE
Petroleum Economist Energy Map Series
0 Miles 200 400
0 Kilometres 400 800

SELECTED ILLUSTRATIVE RNGS PROJECTS

Trunk gas pipeline Tula - Torzhok

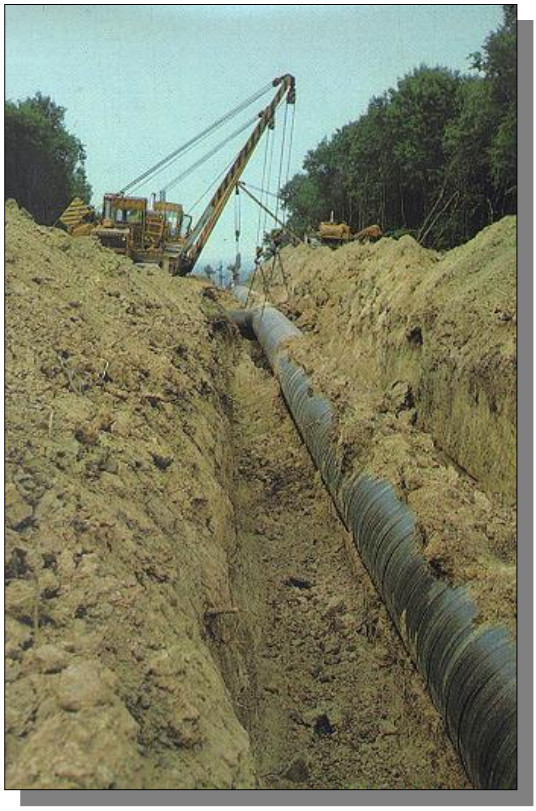


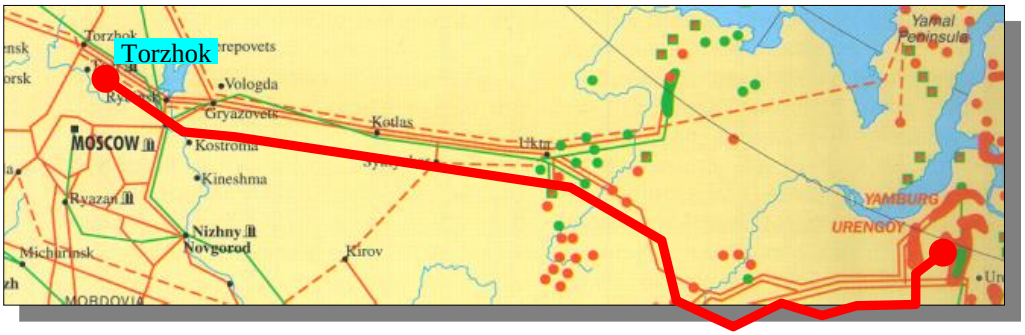
Project description:

Construction of the trunk gas pipeline Tula-Torzhok with compressor stations and the infrastructure.

- Length - 519 km
- Diameter - 1,220 mm
- Construction period - 1994-1998
- Project cost - USD 590 mln

Customer - Gazprom.





Trunk gas pipeline Northern areas of the Tyumen Region - Torzhok

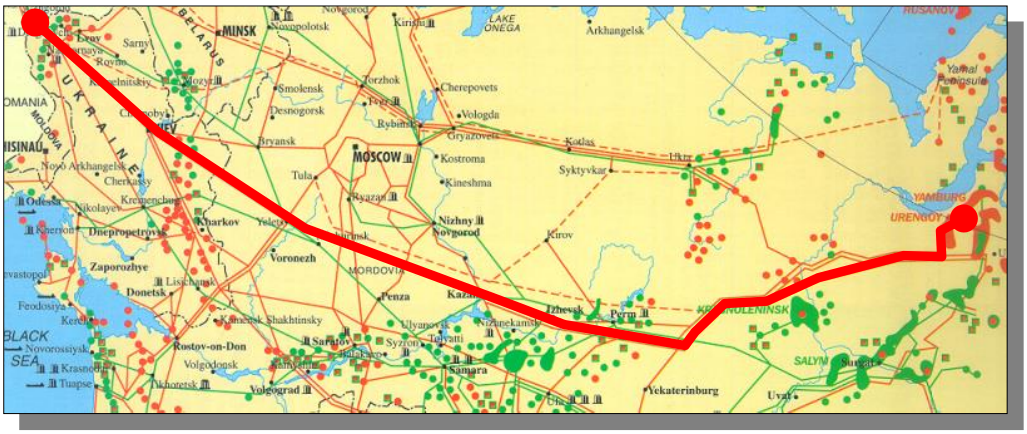
Project description:

Construction of the trunk gas pipeline with compressor stations and the infra-structure.

- Length - 2,456 km
- Diameter - 1,420 mm
- Construction period - 1993- 1998
- Project cost - USD 3.8 bln

Customer - Gazprom.

Trunk gas pipeline Yamburg - Western Border



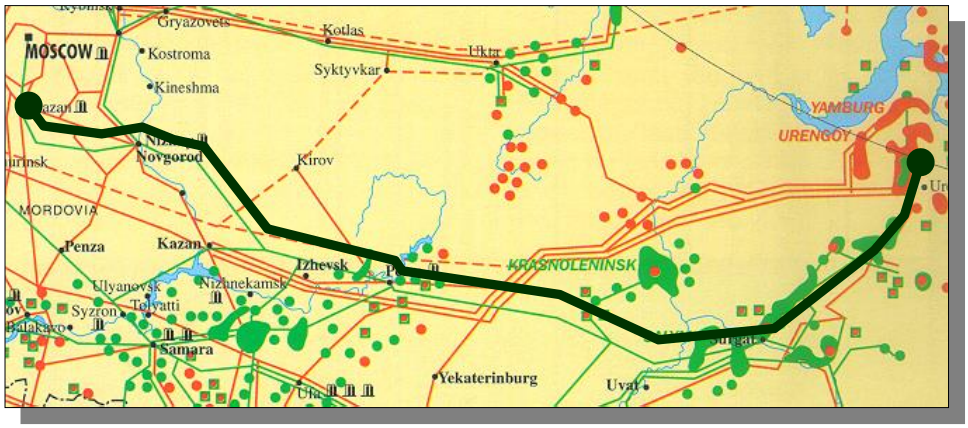
Project description:

Construction of the trunk gas pipeline Yamburg - Western border with compressor stations and the infrastructure.

- Length - 4,500 km
- Diameter - 1,420 mm
- Construction period - 1986-1988
- Project cost - USD 1.4 bln

Customer - Ministry for Gas Industry.

Trunk oil pipeline Northern areas of the Tyumen Region - European part of Russia



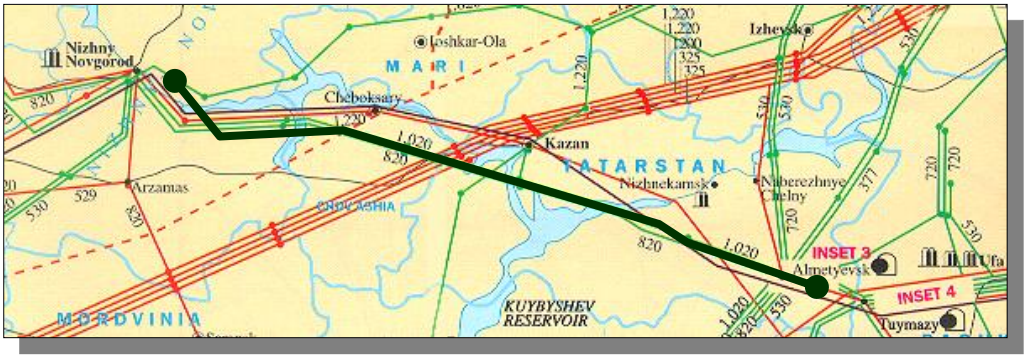
Project description:

Construction of the trunk oil pipeline Yamburg - Western border with compressor stations and the infrastructure.

- Length - 2,426 km
- Diameter - 1,420 mm
- Construction period - 1983-1986
- Project cost - USD 486 mln

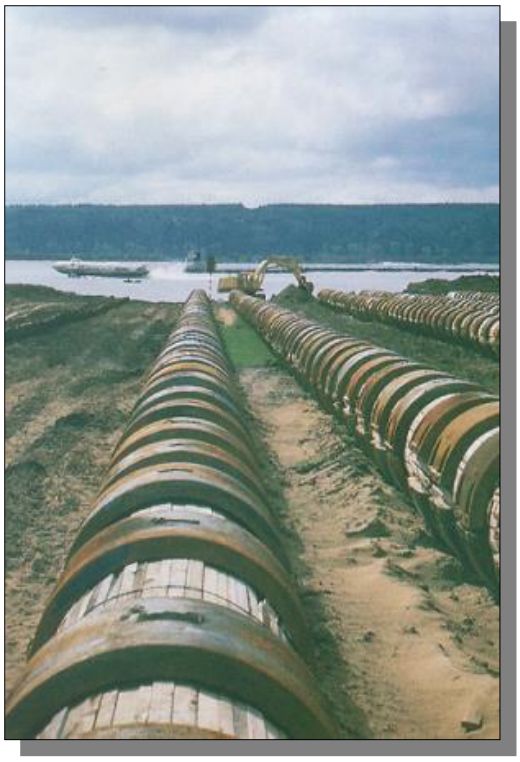
Customer - Ministry for Oil Industry.

Trunk oil pipeline Almetievsk - Gorky



Project description:

Crossing the Volga and Kama rivers by Almetievsk - Gorky pipeline.

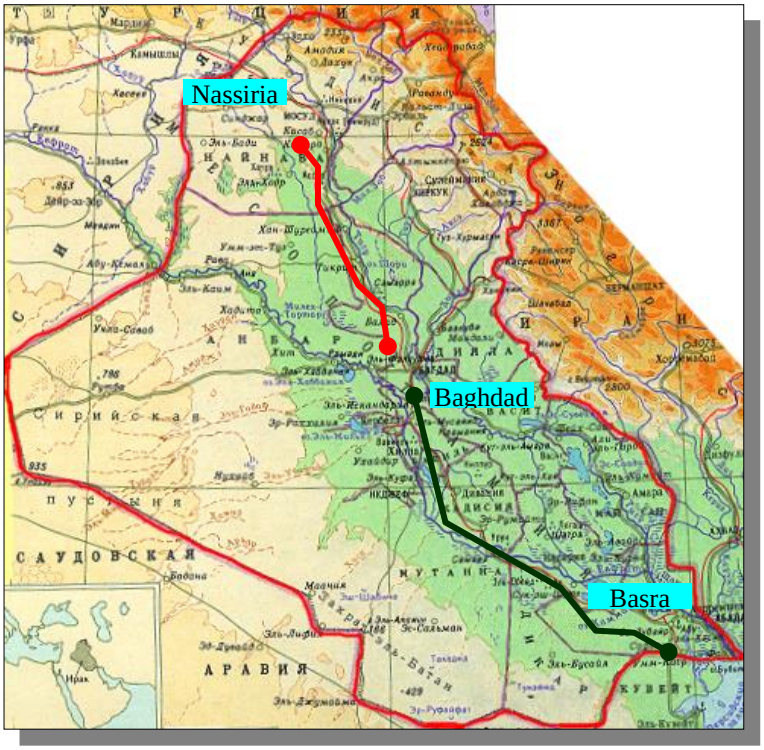


- Total length of river crossings - 20,690 m
- Diameter - 820 mm
- Construction period - 1994-1997
- Project cost - USD 16.8 mln

Customer - Severo-Zapadnye Magistralnye Nefteprovody.

Oil and Gas Facilities in Iraq

Project description:

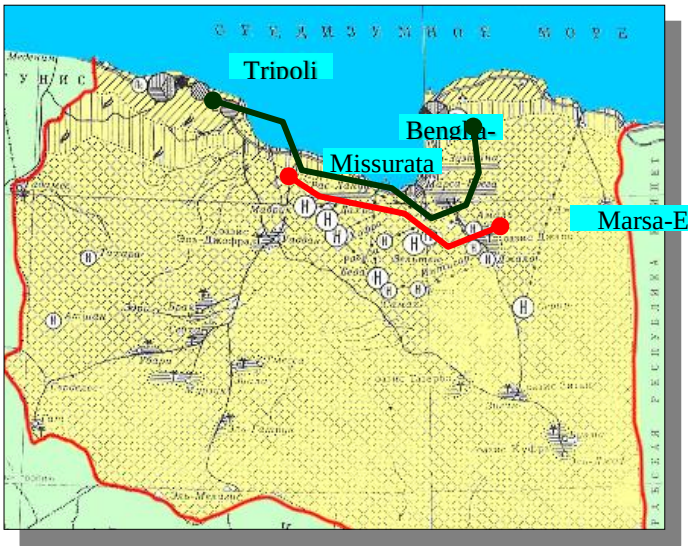


Construction of Nassiria - Baghdad gas pipeline, compressor stations, distribution and measurement stations, oil and products pipeline Baghdad - Basra, oil tank farms.

- *Nassiria - Baghdad gas trunk line*, 345 km long, 1,020 mm diameter, compressor station 2 × 10 MW turbine, two gas measurement and distribution stations.
- *Baghdad - Basra trunk oil and product pipeline*, 250 km long, 584 mm diameter, four pump stations.
- 700,000 m^3 oil tank farms.

Customer - Ministry for Foreign Economic Relations.

Oil and Gas Facilities in Libya



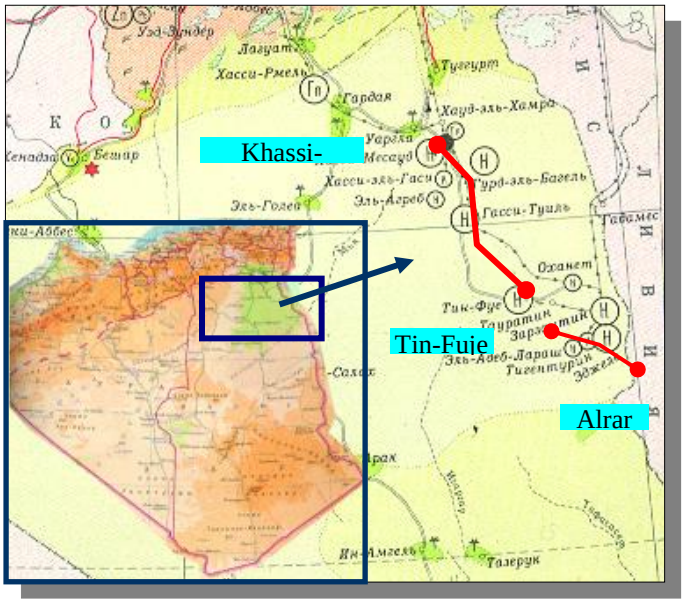
Project description:

Construction of Marsa-El-Brega - Missurata trunk gas pipeline, compressor station and the infrastructure.

- *Marsa-El-Brega - Missurata trunk gas pipeline* to supply a metal plant in Missurata: 570 km long, 860 mm diameter, compressor station and the infrastructure.

Customer - Ministry for Foreign Economic Relations.

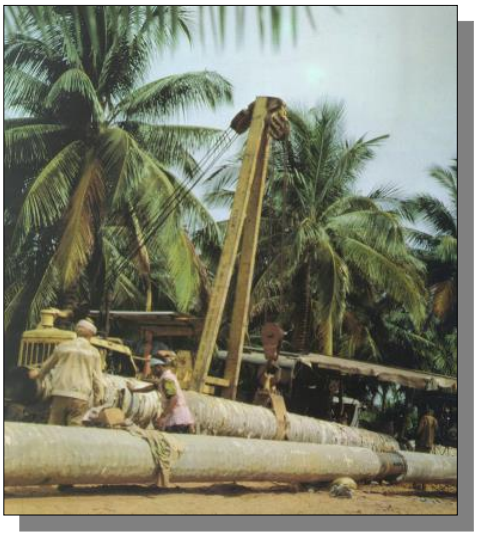
Oil and Gas Facilities in Algeria



Project description:

Construction of Tin-Fuje - Khassi-Messaud trunk gas pipeline and Alrar - Tin-Fuje gas pipeline.

- *Trunk gas pipe-line Tin-Fuje -Khassi-Messaud*, 421 km long, 1,216 mm.
- *Trunk gas pipe-line Alrar - Tin-Fuje*, 232 km long, 1,067 m.



Customer - Ministry for Foreign Economic.

Development of Oil and Gas Fields

Project description:

- Urengoyskoye gas field with throughput of 500 bln m^3;
- Yamburgskoye gas field with throughput of 150 bln m^3;
- Yamal gas fields with through-put of 200 bln m^3;
- Samotlorskoye oil field with throughput of 200 mln tons.

Gas Processing Plants of Tyumen Region

Project description:

Construction of 15 gas processing plants with capacity of more than 30 bln. m^3.

- Goubkinsky;
- Tarasovsky;
- Noyabrsky;
- Voungapourovsky;
- Kogalymsky;
- Bakhilovsky;
- Varyegansky;
- Surgutsky;
- Yuzhnobalouksky;
- Nizhnevartovsky;
- Belozerny;
- Krasnoleninsky etc.

Chernyshevsky - Aikhal - Udachny Gas Pipeline (Republic of Sakha-Yakutiya)

Project description:

Construction of a section of the Chernyshevsky - Aikhal - Udachny trunk gas pipeline.

- Length - 77 km
- Diameter - 530 x 6 mm
- Duration - 2000-2001
- Contract value - Rbls 296.567 mln

Client - ALPOCA Joint Stock.

The Caspian Pipeline Consortium (CPC)

Project description:

Works are being implemented at three Pump Stations on the trunk oil pipeline running from the Tengiz field in Kazakhsatan to the Black Sea oil terminal, including:

- Modernization of the existing Astrakhan Pump Station;
- Komsomolsk Pump Station - rehabilitation of one of the existing facility, demolition of other facilities, construction of new facilities;
- Construction of new Kropotkin Pump Station.

Duration - 1999-2001.

Contract value - US$ 70 mln.

Client - The Caspian Pipeline Consortium.

Rehabilitation of the Oil Complex in the Chechen Republic

Project description:

Repair and rehabilitation works at the Braguny Central Oil Station, including:

- Separation plant; capital expenditures - Rbls 3,015 thousand;
- Tank farm with installation of two (2) tanks 5,000 m^3 each: capital expenditures - Rbls 8,515 thousand;
- Oil pump station: capital expenditures - Rbls 300 thousand;
- Oil measuring station with construction of an oil pipeline 1.5 km long: capital expenditures - Rbls 3,204 thousand;
- Water pipeline 6 km long: capital expenditures - Rbls 4,541 thousand;
- Rehabilitation of the power supply system: capital expenditures - Rbls 420 thousand.

Duration - 2000.

Estimated contract value - Rbls 20 270 thousand.

Client - JSC “Rosneft”.

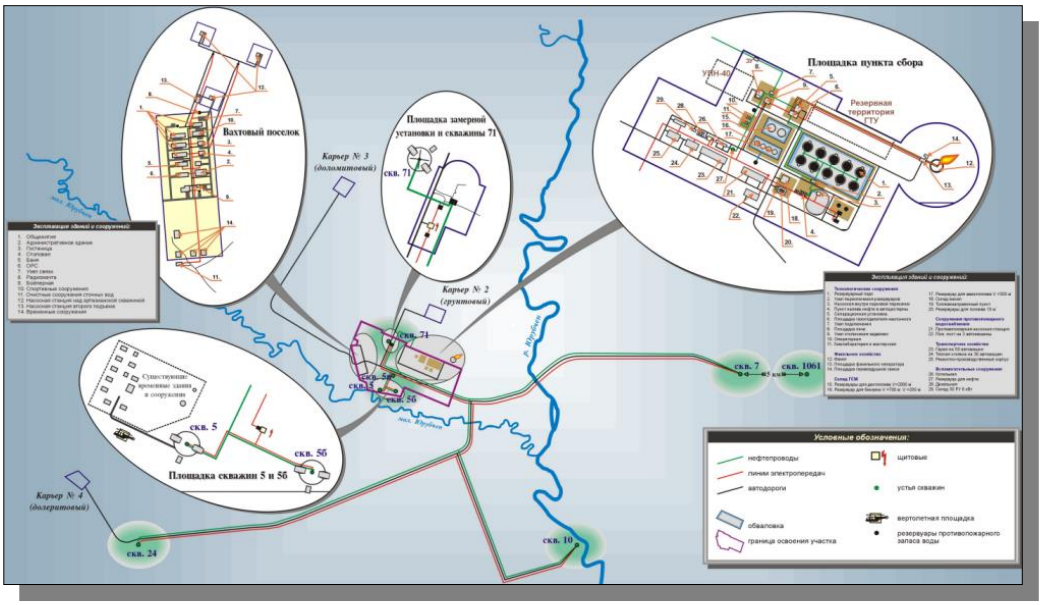
Development of the Yurubchen Field (1st Stage)

Project description:

Overall development of the Yurubchen oil and gas field including prospective and pilot and production drilling, development of a pilot zone, construction of a tank farm and highway.

- Capacity - commercial oil production will constitute the volume of 3.5 mln tons annually; gas - 2.5 bln m^3 annually starting from the 4th year after the construction commencement
- Duration - 1999-2001
- Contract value - about US$ 188 mln

Client - East Siberia Oil and Gas Company (ESOGC), RNGS.



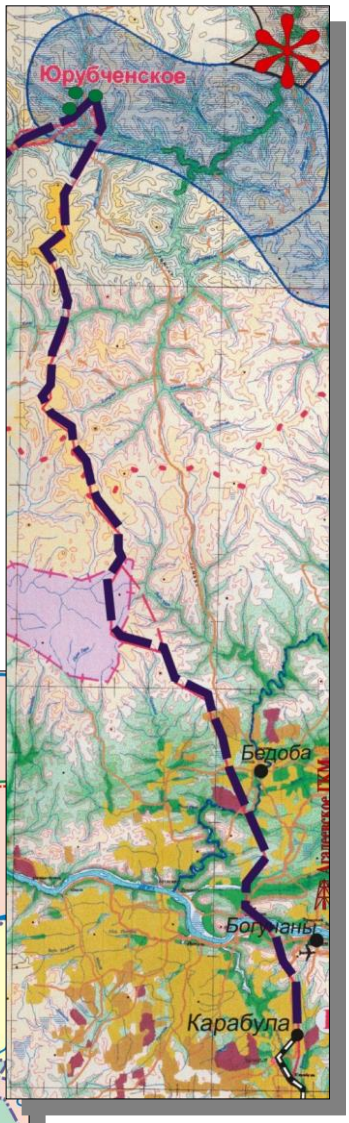
The Yurubchen Field - Karabula Trunk Oil Pipeline

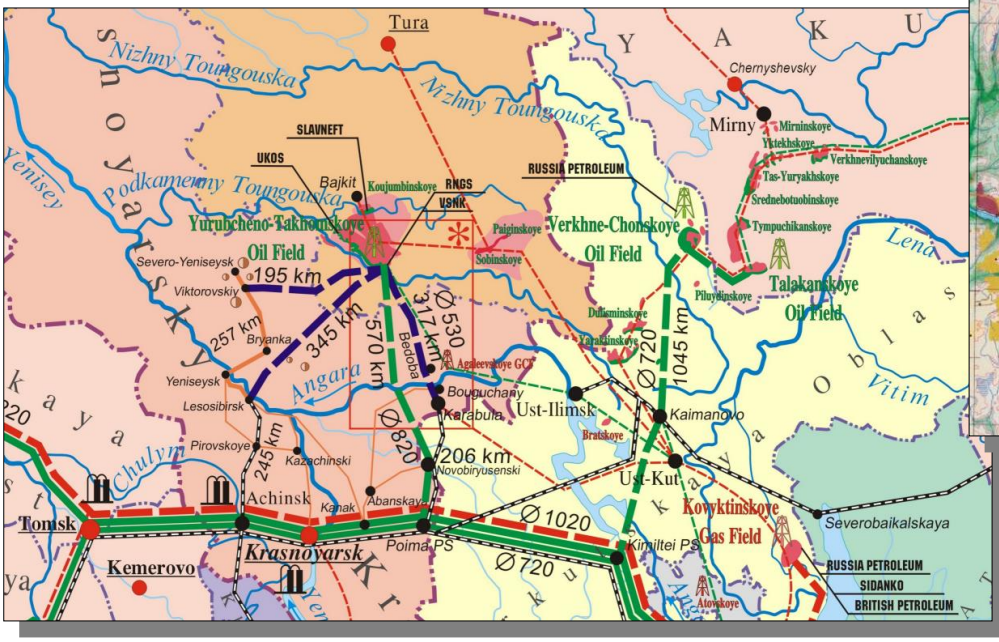
Project description:

Trunk oil pipeline from the Yurubchen field to the oil filling ramp at the Karabula railway station with an oil filling terminal.

- Length - 317 km
- Diameter - 500 mm
- Duration - 1999-2001
- Capital expenditures - US$ 182 mln

Client - East Siberia Oil and Gas Company (ESOGC), RNGS.





ENGINEERING

A unified industry orientated engineering center of RNGS Holding - ***RNGS-Engineering*** - is excellent at performing a complex development of investment projects ranging from pre-design feasibility studies to working design and field supervision utilizing geo IT systems as well as artificial intelligence systems based on cutting the edge modern IT technologies.

The specialists within RNGS-Engineering have developed a technique, which allows an integrated processing of space and ground survey data together with multidimensional simulation of complex structures and consulting analysis applying geo IT and systems which contain the following:

- ***Technical/hardware support*** - powerful graphics terminals based on Pentium III special configuration;
- ***Software support*** coupled with basis GIS package Microstation and application programs packages including Descartes, Terra Modeler etc;
- ***IT support*** - map database (electronic topographical maps, geology and other maps, air survey maps), intelligent database (patterns and samples of interpretation of geological data resulted from air survey) and metaknowledge (formalized procedures on how to use intelligent databases).

An analysis of info flows is presented as electronic maps, 3D or multidimensional models of an area, which have space-orientated databases. These models are established based on electronic subject specific maps using special techniques of interpretation of space images of various scales and/or spectral ranges. Such an electronic cartographic foundation makes a pipeline routing simulation on-line possible whereas various routes, pipeline future operation and environmental impact are assessed. It also allows to evaluate possible effects some management decisions might have.

Due to a new technique developed automated topographic/cartographic and engineering/geological survey activities have been carried out to tackle a number of oil pipeline routes in East Siberia, Caspian region, Sakhalin Island etc. There have also been engineering/geological and geo-ecological survey done followed by a consulting route analysis using the results derived from the integrated processing of multispectral space survey data.

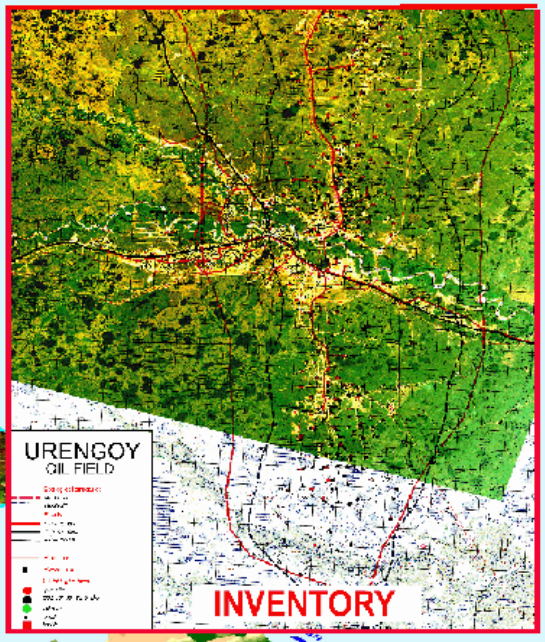
By the use of the method of rapid designing of trunk oil and gas pipelines through an integrated processing and expert analysis of the Earth remote probing data (air space and multispectral location images) it is possible not only to speed up the and reduce the costs of the entire design activity but also have complete and reliable information even at the stage of pre-design approvals and decisions.

RNGS ENGINEERING

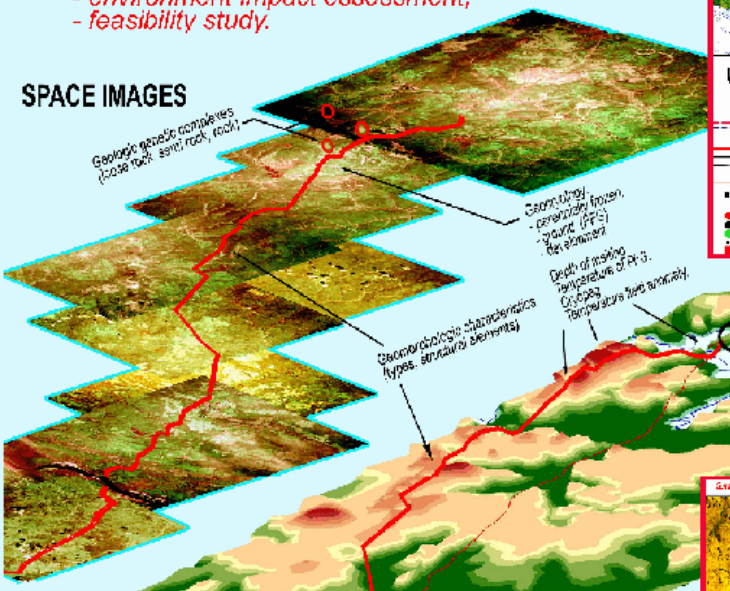
offers Expert System and Technology for:

PIPELINE ENGINEERING

- *3D modeling,*
- *routing,*
- *profiling,*
- *geoengineering mapping,*
- *geoecological mapping,*
- *pipeline design,*
- *environment impact essessment,*
- *feasibility study.*



SPACE IMAGES

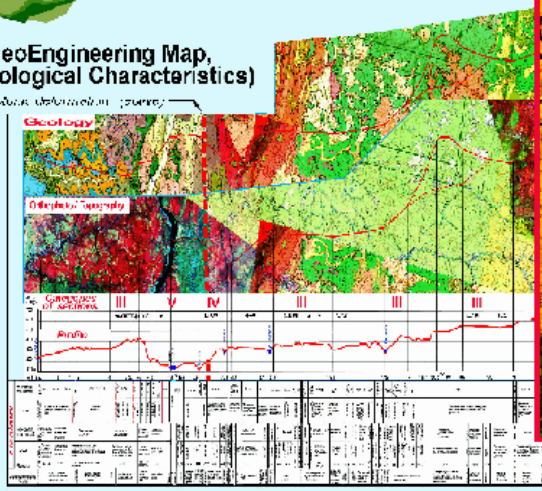


3D MODELS

Moscow, Russia,
tel: (095) 238-7401
fax: (095) 238-7177

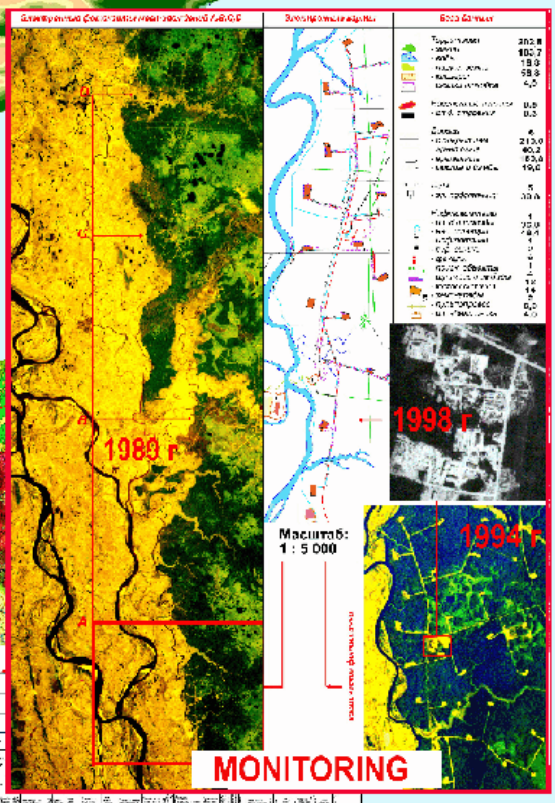
PRODUCTS (GeoEngineering Map, Profile, GeoEcological Characteristics)

2D MODELS



PIPELINE PROFILE

DOCUMENTATION



LEASING

RNGS-Leasing

RNGS-Leasing leasing company is a RNGS daughter enterprise and its activity is aimed at meeting the requirements of the corporate companies and enterprises as regards construction machinery and equipment, vehicles and other equipment.

The following are the main activities of RNGS-Leasing:

- all operations relating to financial, intermediary long-term and return short-term leasing including letting out on lease and hiring construction and other purpose equipment and machinery;
- follow-up and support of return short-term leasing contracts as regards provision of services relating to technical operation of construction machinery fleet and equipment manufactured locally and abroad;
- elaboration and development of new methods, forms and structures on maintenance and repair of construction equipment;
- the entire scope of technical operation;
- qualified assistance to construction organizations in formation, renewal and operation of the machinery fleet as well as training of mechanical, operational and repair personnel;
- qualified assistance to construction organizations in selection, acquisition and rational use of construction equipment and machinery and other technical plant;
- construction and installation works (preparatory and earth moving works, installation of external service lines and equipment, road building, arrangement and renovation of sites, General Contractor's functions etc.), provision of engineering services;
- transportation, expedition and forwarding services including those required to provide for the work of construction equipment and machinery under return short-term leasing contracts;
- purchase of machinery, mechanisms, vehicles and other equipment as well as necessary components required to meet the needs of enterprises, institutions, organizations and private persons which have contractual relationships with RNGS-Leasing;
- Sale (all types of trade) of the machinery, mechanisms, and other equipment manufactured both locally and abroad including sale of vehicles, numbered and other spare components and parts:
  - sale of vehicles (cars and trucks, buses and special purpose vehicles) and trailers;
  - sale of tractors and tractor trailers, self-propelled road construction machinery and other self-propelled equipment;
  - sale of numbered spare components and parts (engines, bodies, boards etc.) for the above quoted vehicles, machinery, tractors and trailers;
- sale of fuel and lubricants as well as consumables;
- testing of machinery and assembled units.

CONSTRUCTION EQUIPMENT AND MACHINERY

Item	*Model, manufacturer*	*Total number*	*Performances*
Bulldozer		**451**	
	D-85A D-355 D-475 Comatsu, Japan	187 24 43	225 h.p 410 h.p. 770 h.p.
	D-9H,L,G Caterpillar, USA	112	100 h.p.
	T-170, DZ-171, Russia	85	160 h.p.
Power shovel		**221**	
	ND-1500, Kato, Japan	54	210kW, 1.5 m^3 scoop
	EX-400 EX-100 Hitachi, Japan	52 62	200 h.p., 1.5 m^3 scoop 280 h.p., 1.5 m^3 scoop
	EO-5123, 5124, 5126	53	0.65-1.6 m^3 scoop
Trench excavator		**55**	
	ETR-223, 224, 254 ETR-206, MTK-2, Russia	42 13	118 kW, based on T-170, throughput 600 m^3/hour
Blast hole drilling machine		**131**	
	BM-254, 302, 311 BM-2001, 2056, Russia	47 84	55 kW, KTZ-82 based, 2 m depth 85 kW, TDT-55 based, 3 m depth
Horizontal drilling machine		**34**	
	GB-4, 5, 1421 GB-1621, 1721, Russia	19 15	Transition length - 60 m, D 325-14200 mm
Tractor		**37**	
	K-701, T-130, 170 Russia	37	
Logging tractor		**65**	
	TT4	65	86 kW, Pulls 12 t

Item	*Model, manufacturer*	*Total number*	*Performances*
	Russia		
Grader		**65**	
	DZ-98B, 122, 143 Russia	65	100 kW
Self-propelled scraper		**52**	
	D-347P Russia	52	240 h.p., based on UOAZ-546, 8 m^3 scoop
Pile driving unit		**26**	
	SP-49 Russia	26	Based on T-130, diesel hammer, 9-12 m penetration
Self-propelled roll-er		**24**	
	DU-47, DU-48B DU-54A Russia	8 16	3 rolls, 9-12 t 2 rolls, 1.5-2.2 t
Asphalt placer		**4**	
	DS-126, DS-143 Russia	4	37-44 kW, 8-10 t bunker, 157-170 t/hour

Item	*Model, manufacturer*	*Total number*	*Performances*
Sideboom		**258**	
	TG-502, TG-321A TG-61, TG-126 TO-1224 Russia	53 32	340 h.p., based on TT-330, 50 t capacity
	D-355S Komatsu, Japan	48	360 h.p., 50 t capacity
	CAT-591 CAT-594 Caterpillar, USA	36 9	410 h.p., 52 t capacity 46 t capacity
Crane truck		**258**	
	KS-35I KS-3575 KS-2561 Russia	27 74 92	16 t 155 kW, ZIL-133, 10 t 110 kW, ZIL-130, 6 t
	KS-676, 5363A, 5473 Ukraine	8	Special chassis, 40 t, 36 t, 25 t
	1055, 1080 Liebherr PDK-25 Germany	16 41	Special chassis, 55 t, 80 t crawler propelled, 25 t
Pulling winch		**10**	
	LP-151, 152 Russia	10	150 t pulling thrust
Loader		**57**	
	WA-320, 380, 420 Komatsu, Japan	40	168 h.p., 190 h.p., 228 h.p
	OM 1422П Russia	17	

Item	*Model, manufacturer*	*Total number*	*Performances*
Welding unit		**29**	
	PAU-502, 1001 Russia	29	
Welding machine		**370**	
	AS-81 ADD4, AEP-52, AS-41 UST-21, 22 ADD-4001, 3112 Russia	68 131 62 119	8 posts 4 posts 2 posts 1 post
Flash Butt Welding complex		**14**	
	STYK-04 BTS-81 Russia	7 7	
Welding power units		**86**	
	USEB-100 USEB-60 Russia	42 44	
Pipe assembling line		**9**	
	LST-81 Russia	**9**	
Clean, prime and tape machine		**11**	
	MI-820 MIA-820, IM-821 Russia	4 7	
Cleaning machine		**12**	
	OM-1423P, OMG-821 MPP-820 Russia	8 4	160 h.p.
Bitumen tank		**28**	
	UBK-81, 161 Russia	28	
Air compressor		**34**	
	SD-9/10	29	Q_{max} 6000 m^3/hour P_{max} 120 at
	Krezo-Luar France	5	Q_{max} 6000 m^3/hour
Line-up clamps		**43**	
	TsV-85 TsZ-81 Russia	15 28	
Pipe bending unit		**41**	
	GT-1020 GT-1421, 1422	29 22	D 720-1020 mm D 1220-1420 mm

Item	*Model, manufacturer*	*Total number*	*Performances*
	Russia		
Pipe drying unit		**49**	
	ST-822, 1024 ST-1224, 1424 Russia	15 34	D 720-1020 mm D 1220-1420 mm
Filling unit		**64**	
	AN-261 AN-501 ASN-1001 Russia	31 27 6	260 m^3/hour 480 m^3/hour 1000 m^3/hour
Filling and pressurizing unit		**19**	
	ANO-202, 203 Russia	19	Filling 45 m^3/hour Testing 1.8 m^3/hour
Pressurizing unit		**52**	
	AO-161 AO-401 Russia	24 28	22 m^3/hour, 130 kgf/cm^2 2.5 m^3/hour, 400 kgf/cm^2

Item	*Model, manufacturer*	*Total number*	*Performances*
Cementing unit		**22**	
	TsA-320 Russia	22	
Mortar mixer		**15**	
	SO-23B SO-49B, 52, 57 Russia	7 8	
Concrete mixer		**49**	
	S-1036, 739, SB-92V-1 SB-16, 92A, 101, 133, 145 Russia	23 26	
Mortar loader		**15**	
	OEZ EPKB Russia	15	
Plaster applying unit		**50**	
	ShA-1 UshOS-4 Russia	19 31	4 m^3/hour
Painting unit		**8**	
	ChMB-1, MS-2 Russia	8	
Surface vibrator		**32**	
	VP-6, 7 Russia	32	
Internal vibrator		**21**	
	VUG-5A, 8 Russia	**21**	

Item	*Model, manufacturer*	*Total number*	*Performances*
Dump truck		**370**	
	Tatra-815 Czheckia	94	15 t capacity
	KrAZ-256 Ukraine	**70**	240 h.p., 12,5 t
	KamAZ-5511, 5549 ZIL MMZ-4205 ZIL MMZ-555 Russia	117 59 30	210 h.p., 10 t 130 h.p., 5 t, 8 t
Pipe carrier		**135**	
	PV-95 PV-203 PV-204 Russia	63 43 29	
Truck		**165**	
	KrAZ-257B Ukraine	22	240 h.p.
	MAZ-5335 Belarus	**18**	
	Ural-4320 KamAZ-4310, 5320 ZIL-130, 131 GAZ-53, 66 Russia	43 44 26 12	
Prime mover		**57**	
	ZIL-130, 131 KamAZ, MAZ, Ural Russia	36 21	
Personnel bus		**136**	
	Ikarus 256 Hungary	8	
	ZIL-131, PAZ-672 KamAZ-43101 Ural-375, 4320 GAZ-66 Russia	38 75 15	
Mobile repair shop		**23**	
	PRM-5A, PRM-7, PRM-8	23	

Item	*Model, manufacturer*	*Total number*	*Performances*
	Russia		
Fuel tank truck		**66**	
	AtsV-8, KamAZ-4320, Ural-4320, ZIL-131 Russia	66	
Bitumen tank truck		**22**	
	BV-43, BV-46 Russia	22	
Trailer		**66**	
	KrAZ-255B MAZ-573, 7313, U-4005, 6006, ChMZAP-5208, 5212, ChMZAP-9990 Russia, Ukraine, Belarus	66	40-60 tons capacity
Off-road car		**38**	
	UAZ-31512 Russia	38	

Item	*Model, manufacturer*	*Total number*	*Notes*
Welding quality inspection lab	LKS-2 AKP-144 RML-2B Russia	15 12 14	
Self-propelled X-ray unit	Crawler, UK	8	
Gamma-ray flaw detector	Gammarid-25 Russia	14	
X-ray unit	Arina 01-05, Russia MIR-2D, Russia PION, Russia, Philips, Netherlands	68 24 4 3	
Ultrasonic flaw detector	UD-11, UD2-12 Russia	14	
Coating testing unit	Krona-1r Russia	42	
Coating control unit	UKI-1M	2	
Coating continuity detector	Holiday Detector, UK	47	
Coating continuity detector	DKI-1 Belarus	45	
Coating damage detector	IPIG-1, IPPI-95 Belarus	54	
Coating control lab	LIP-1 Ukraine		
Cleaning control unit	UKSO Russia	28	
Tearing machine	UMM-50 Russia	5	
Penetrometer	- Russia	38	
Adhesiometer	AR-2 Russia	31	
Instrument to measure mastique properties	KISh Russia	19	
Field soil testing laboratory	PPL-9 Russia	6	

Item	***Model, manufacturer***	***Total number***	***Notes***
Vibration site lab	SMZH-539 (435A) Russia	7	
General construction works control laboratory	Stroikontrol 802	9	
Laboratory caravan	DRP Russia	4	

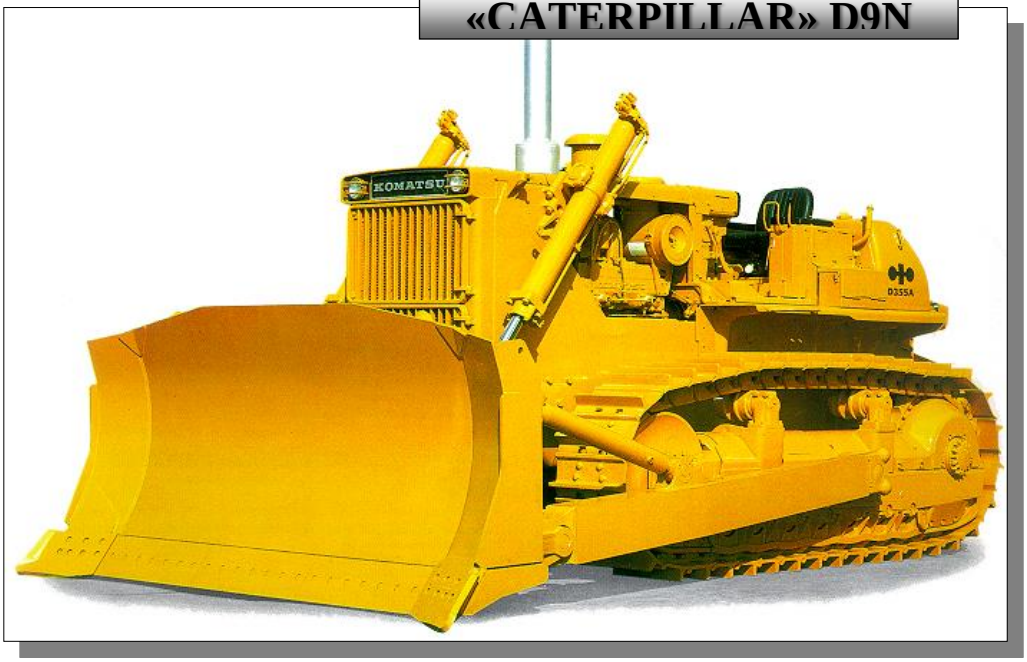
Item	*Model, manufacturer*	*Total number*	*Performances*
Suction-tube dredge		**10**	
	Krym type, IHC, Netherlands	2	5086 h.p.
	Podvodnik-2 type, O+K, Germany	1	1346 h.p. 300 m^3/hour
	TZR-251 TZR-151 Russia	3 4	715 h.p. 324 h.p.
Scoop dredge		**4**	
	Balkhash type OSWAG, Austria	2	1625 h.p.
	Podvodnik-1 type HAKODATE, Japan	1	2260 h.p. 150 m^3/hour
	Podvodnik-3 type O+K, Germany	1	767 h.p., 90 m^3/hour
Ejection dredge		**13**	
	PMT-100 DGS-150 UPGEU-Sh ZRM-15, EKO, UME-2 Russia	5 3 1 4	324 h.p. 380 h.p. 680 h.p. 325 h.p.
Dump scow		**5**	
	Gidroklad-400 type, DWE, Germany	5	670 h.p.
Floating hull		**12**	
	PP-60, PSR-90, PSR-120 Russia	12	
Sailing crane		**2**	
	Hanz Hungary	1	16 t capacity
	KPL-5 Russia	1	5 t capacity
Motor vessel		**16**	
	H-3181 Hungary	2	1620 h.p.
	MB-6090 1496 RT-79 911-B	1 1	355 h.p. 340 h.p.

Item	*Model, manufacturer*	*Total number*	*Performances*
	1427 1606 T-63 16601 Russia	3 6 1 2	320 h.p. 235 h.p. 150 h.p. 90 h.p.
Delivering tug		**6**	
	Don type Oskol type Fukusima Dzosen, Japan	4 2	680 h.p. 380 h.p.
Diving boat		**18**	
	RVN-376 Russia	18	186 h.p.
Boat		**34**	
	BMK-130 Russia	34	100 h.p.
Flat bed barge		**19**	
	BP-501 BP-301 Russia	11 8	500 t 300 t

BULLDOZERS

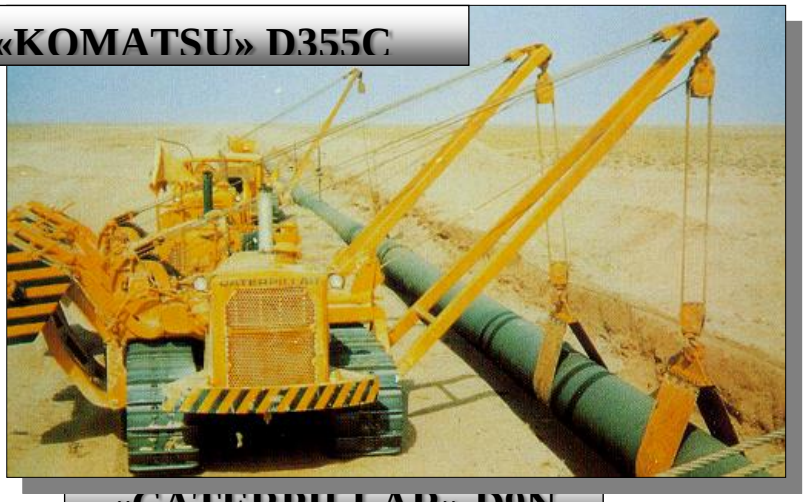
«KOMATSU» D355A

«CATERPILLAR» D9N



SIDEBOOMS

«KOMATSU» D355C



«CATERPILLAR» D9N

«CATERPILLAR» 594

HYDRAULIC EXCAVATORS

«KATO» HD 1500

(BACKHOES)

«HITACHI» EX 400

HYDRAULIC EXCAVATORS

ЭО-3123

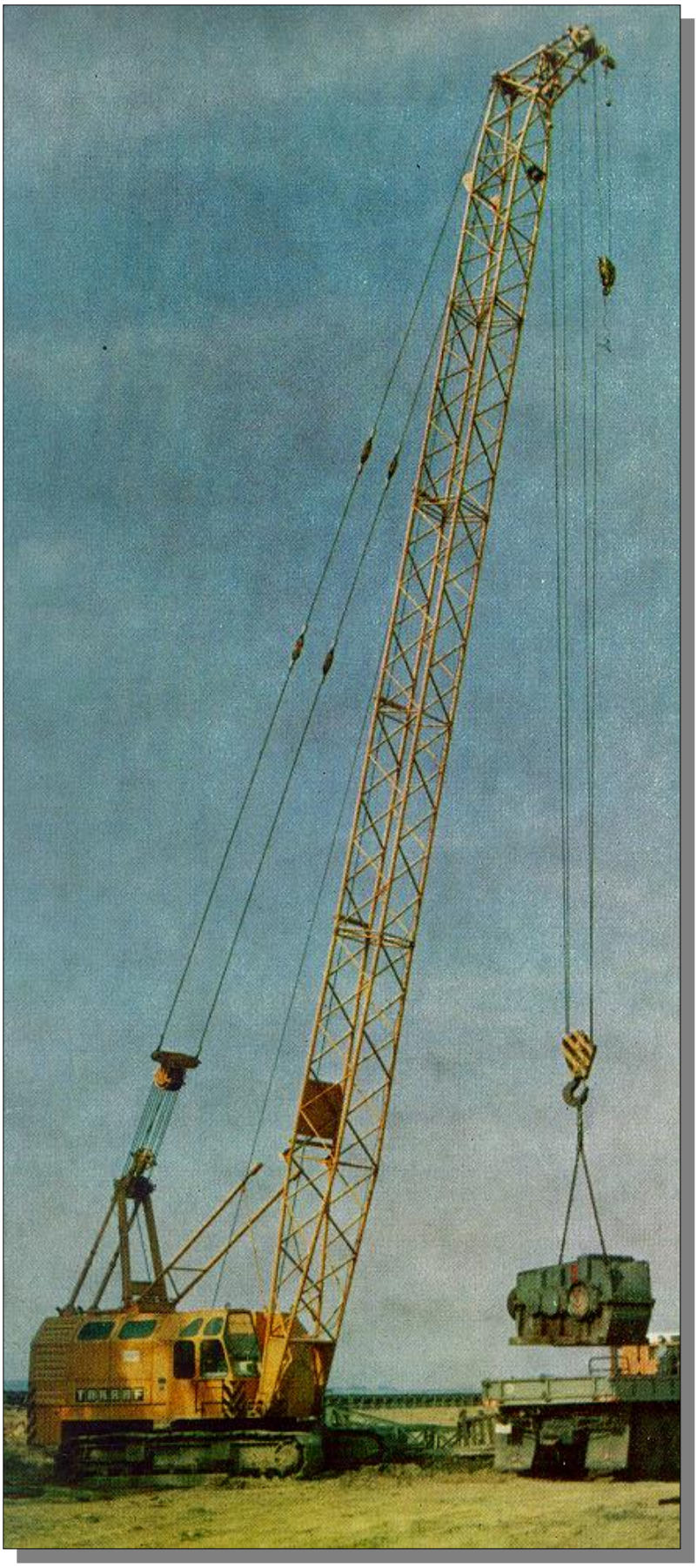
ЭО-3123-20

ЭО-3323А-40

ЭО-3323А-08

(BACKHOES)

ЭО-3323А



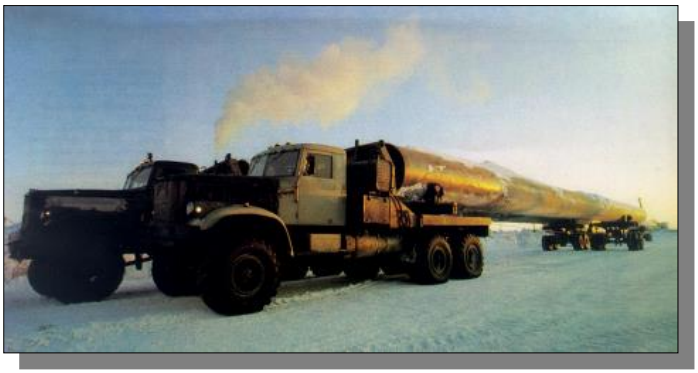
«HITACHI» EX 400

FLASH BUTT WELDING MACHINE

TRUCK «TATRA»

OFF-ROAD TRACTORS

PIPE CARRIERS



FUEL TANK TRUCKS

PRODUCTION AND PROCUREMENT

INDUSTRIAL ENTERPRISES IN THE RNGS STRUCTURE

RNGS united structure comprises a number of the largest manufacturing enterprises in the oil and gas construction sector which are equipped with up-to-date foreign and Russian technologies and capacities required to produce special materials, structures and parts for the construction of oil and gas extraction, transportation, refining and processing facilities:

- ***TRUBODETAL JSC*** (Chelyabinsk) - annual production of 39,000 tons of connection joints (fittings) of 57-1,420 mm dia. manufactured with the Japanese and Belgian equipment, 1,000,000 m^2 of three-layer "Sandwich"-type panels using the German technology;

- ***TRUBOIZOLYATSIYA JSC*** (Novokuybyshevsk) - annual production of 60,000 tons of polyethylene coating materials using the German technology, over 7,500 km of polyethylene pipes and 8,000 tons of PVC tapes;
- ***"STEEL STRUCTURES PLANT" JSC*** (Serpukhov);
- ***TRUBOPLAST JSC*** (Novokuybushevsk) - production of polyethylene pipes for subterranean gas and water pipelines;
- ***NEFTEGAZSTROYINDUSTRIYA JSC*** (Moscow);
- ***PENZAVODPROM JSC*** (Penza) - production of steel pipes of 15-159 mm dia., enameled steel pipes, steel pipes with anti-corrosion polyethylene coating of 57-530 mm dia., polyethylene low and high working pressure pipes of 16-110 mm dia., r/f concrete structures;
- ***"PRIZ NEGAS Plant" JSC, PRIZ NEGAS JSC*** (Penza) - production of polyethylene coating for stell pipes of all diameters (57-1,220 mm);
- ***NEGAS-DNEPR JSC*** (Dnepropetrovsk) - in-plant coating of steel pipes with polyethylene;
- ***KEM-LES JSC*** (Izhevsk) - processed timber products.

The activities of the industrial enterprises involved in manufacture of special materials, structures and parts, and procurement for various construction projects are supervised and coordinated by the following divisions:

- ***RNGS-PROM*** - It has the international licenses and certificates for the entire range of the output produced; it also includes two design and technology offices and three modern laboratories that provide the elaboration and development of latest technological procedures and equipment and thorough control of the quality of the output produced;
- ***NEGAS*** - The trade house of the oil and gas construction enterprises that has been a supplier of materials and equipment for more than 30 years. It provides the oil and gas projects under construction with steel pipes, delivers to customers the whole range of products of the chemical industry, machine-building including welding equipment, portable power stations, metal-cutting machines, forging and pressing equipment, pipeline valves and fittings, cable-conducting and other products.

TECHNICAL CHARACTERISTICS

OF THE OUTPUT PRODUCED

STEEL PIPES:

Pipe diameters, mm	*Pipe wall thickness, mm*	*Steel grade*	*Notes*
15	2,5-3,2	10, 20, 3, KP, PS, SP	GOST10704-94 Longitudinal Weld
25	2,5-3,2	–**–	–**–

Pipe diameters, mm	Pipe wall thickness, mm	Steel grade	Notes
32	2,5-4,0	–**–	–**–
40	2,5-4,0	–**–	–**–
57	2,5-4,0	–**–	–**–
60	2,5-4,0	–**–	–**–
76	2,5-4,0	–**–	–**–
159	4	–**–	–**–

POLYETHYLENE PIPES:

Pipe Diameter, mm	Wall Thickness, mm	Pipe type and nominal pressure, MPa (kg/sm^2)							
		Light (l)		Medium-light (sl)		Medium (m)		Heavy (t)	
		MPa	$\frac{kg}{sm^2}$	MPa	$\frac{kg}{sm^2}$	MPa	$\frac{kg}{sm^2}$	MPa	$\frac{kg}{sm^2}$
16	2,0-2,7	-	-	-	-	0,6	6,0	1,0	10,0
20	2,0-3,4	-	-	-	-	0,6	6,0	1,0	10,0
25	2,0-4,2	-	-	0,4	4,0	0,6	6,0	1,0	10,0
32	2,0-5,4	0,25	2,5	0,4	4,0	0,6	6,0	1,0	10,0
40	2,0-6,7	0,25	2,5	0,4	4,0	0,6	6,0	1,0	10,0
50	2,0-8,4	0,25	2,5	0,4	4,0	0,6	6,0	1,0	10,0
63	2,0-10,5	0,25	2,5	0,4	4,0	0,6	6,0	1,0	10,0
75	2,0-12,5	0,25	2,5	0,4	4,0	0,6	6,0	1,0	10,0
90	2,0-15,0	0,25	2,5	0,4	4,0	0,6	6,0	1,0	10,0
110	2,0-18,4	0,25	2,5	0,4	4,0	0,6	6,0	1,0	10,0
160	14,6	-	-	-	-	0,6	6,0	1,0	10,0
225	20,5	-	-	-	-	0,6	6,0	1,0	10,0

For underground pipelines transporting the natural combustible gases the polyethylene pipes are manufactured using the GOST standard R50838-95 (SDR 11) and TS-49-047 19662-120-94 and are made of medium pressure polyethylene (Finatene 3802R); for pipelines that transport technical and potable water and other liquid and gaseous substances to which the polyethylene is chemically stable the polyethylene pipes are manufactured using the GOST standard 18599-83, type T and are made of low pressure polyethylene.

As a raw material for pipe production the Petrofona Company's medium pressure polyethylene of grade PE-80 is used; materials of other manufacturing Companies (that are certified in the Russian Federation), similar locally manufactured materials and low pressure polyethylene of grades 289, 277, 273 produced by the Kazan' Association "Orgsintez".

STEEL PARTS FOR PIPELINES:

Description	*Diameter, mm*	*Working pressure, MPa*
Pipe bends	57-1420	10
T-joints	57-1420	10
Reducers	57-1420	10
Flanges	57-1420	10

Description	*Diameter, mm*	*Working pressure, MPa*
Plugs	15-530	1,0-1,6
Elbows	235-1420	5,6-10

POLYETHYLENE COATING MATERIALS:

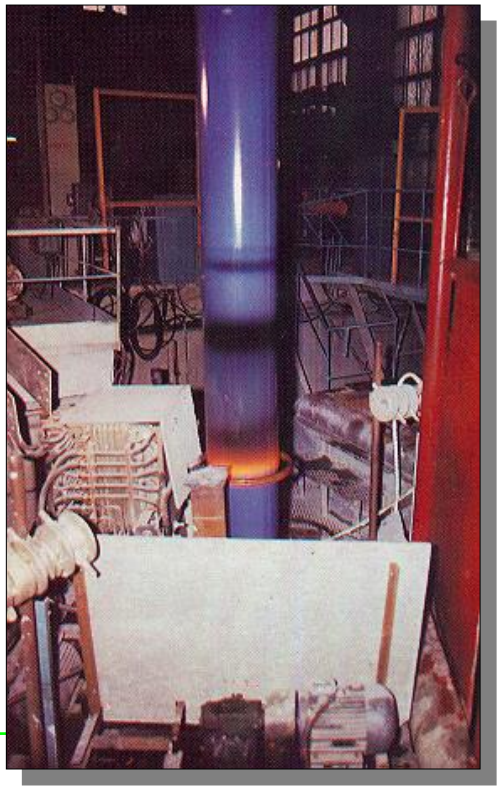
- coating polyethylene tape for oil and gas products pipelines «Polylene»;
- PVC adhesive tapes PVC-L and PVC-BK (wrap).

ENAMELED STEEL PIPES:

There have been produced over 10.000 km. of enameled pipes of 57-426 mm dia. which were employed for the development oil fields and construction of technical and potable water pipelines.

The enameled pipes can be used for pipelines laid down in the ground, for land reclamation, for oil, energy, chemical, petrochemical, atomic, metallurgical, ship building and other sectors of industry - everywhere where reliable durable long-lived anti-corrosion protection of pipe walls brought into the contact with aggressive mediums and sea water is required. Their application allows:

- to prevent the abrasive wear and settling on the pipe walls;
- to enhance the throughput of pipelines and their and their life span;
- to ensure the high quality and purity of the product transported;
- to increase the reliability of pipelines operated, especially in corrosionally active mediums.



Inspection of the existing pipelines has proved their reliability. The equipment of the continuous production line allows to enamel both the external and internal surfaces of pipes of various diameters, ranging from 57 to 426 mm. The technology for construction of enameled pipelines with enamel protection of internal welded joints has been worked out. The pipes are supplied together with enameled con-

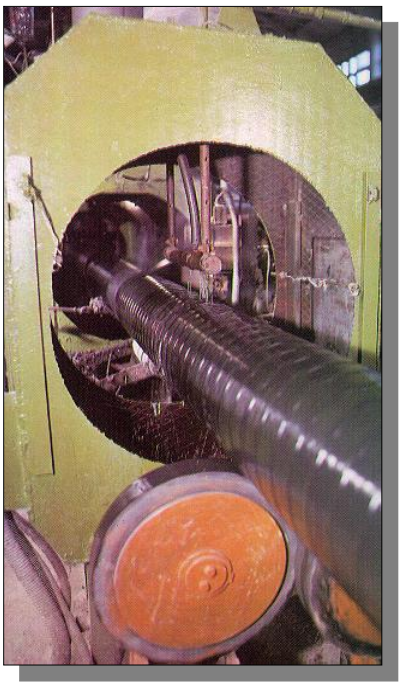
nection parts: elbows, reducers, T-joints, plugs.

STEEL PIPES COATED WITH ANTI-CORROSION POLYETHYLENE:

RNGS enterprises have a combined annual capacity of manufacturing over 3,000 km of external polyethylene coating for pipes of 57-1,220 mm dia.

At a buyer's order the plant can manufacture the polyethylene coating applied on bitumen-rubber mastic (Plastobit-type coating) or on solid Sevilene-based adhesive material.

The coated pipes offered comply with the requirements of the Russian standard GOST 25812-83 for the trunk pipelines and GOST 9.602-89 for the pipelines in urban areas. At present the polyethylene coated pipes are used for the construction of trunk and gathering oil and gas pipelines, urban gas consumer lines, multi-purpose product and water pipelines.



The polyethylene coating provides reliable protection of pipelines within the temperature range of -40° C up to +60° C.

Application of plant-coated pipes according to TS 1394-006-02066613-98 has been approved by TRANSNEFT and according to TS 1394-007-02066613-98 - by GAZPROM.

At customers' orders RNGS supplies pipes a reinforced and highly reinforced coating together with shrink tape and sleeves for the field welding of joints.

The pipes of 89-426 mm dia. are manufactured with combined coating: internal coating with enamel and external coating with polyethylene.

PANELS:

(zinc-coated, frameless, with a heat insulator made of the mineral slab)

- three-layer "Sandwich" type wall panels of 2,4/12,0 × 1,0 × 0,12/ 0,14 m;
- three-layer "Sandwich" type roof panels of 6,5/12,5 × 1,0 × 0,12/ 0,15 m.

TIMBER INDUSTRY PRODUCTS:

1,7 × 0,8 m furniture panels, joinery and other processed timber products are manufactured on available automatic production lines using various wood species.

MAIN STAFF

Staff group	*Number*
Research and technical staff (engineering divisions), total	**6,100**
Field engineers (construction site personnel), total	**21,000**
Including:	
• Superintendents (senior foremen)	2,750
• Foremen	11,100
• Inspection engineers	7,150
Workers of main construction trades, total	**67,700**
Including:	
• Machinery operators	24,100
• Welders	12,000
• Installation workers	13,900
• Coaters	4,700
• Drivers	13,000
Other	**55,200**