FIRST IN
OIL-FIELD
CHEMISTRY

NIINEFTEPROMCHIM

JSC «NIInefteprom chim» develops and implements chemical products for oil production processes.

JSC «NIInefteprom chim» dates back to February 24, 1978, when the order of the Ministry of Oil Industry of the USSR established SPA «Soyuznefteprom chim», the main unit of which was the institute «VNIPInefteprom khim» (in 1992 it was reorganized into «NIInefteprom chim»).

JSC «NIInefteprom chim» developed and implemented more than 150 names of chemical products and technologies. All of them are approved for use in the oil and gas extraction industry and are confirmed by normative and technical documentation. The quality management system of the organization is certified for compliance with the standard GOST ISO 9001-2015.

JSC «NIInefteprom chim» can supply the necessary quantity of chemical products and equipment in the shortest possible time, carry out laboratory and pilot-industrial tests and their application supervision.

Chemical solutions under the SNPCH brand and technology of their application are successfully used in the oil fields of Russia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan.

Our company supplies reagents to various oil companies, including the largest ones: PJSC «NK «Rosneft», PJSC «Gazpromneft», PJSC «LUKOIL», PJSC «Tatneft», JSC «RITEK», PJSC «NK «RussNeft», JSC «Surgutneftegaz», JSC «Zarubezhneft», PJSC «Transneft», LLC «INK», State Production Association Belorusneft.

40
YEARS
OF EXPERIENCE

150
PRODUCTS

333
PATENTS AND COPYRIGHT CERTIFICATES

13 000 tons
VOLUME OF OUTPUT PRODUCTS PER YEAR

520
SCIENTIFIC ARTICLES

MAIN AREAS OF ACTIVITY

ENHANCED OIL RECOVERY AND BOTTOMHOLE TREATMENT OF WELLS :
compositions and technologies for enhanced oil recovery and intensification of oil production.

LABORATORY RESEARCH AND SERVICES ON ENGINEERING SUPPORT.

IMPLEMENTATION OF INSTRUMENTS AND LABORATORY EQUIPMENT.

DEVELOPMENT, PRODUCTION AND INTRODUCTION OF CHEMICAL PRODUCTS FOR OIL PRODUCTION, TRANSPORTATION AND PREPARATION OF OIL:

- demulsifiers;
- corrosion inhibitors;
- bactericides;
- neutralizers of hydrogen sulfide and mercaptan;
- inhibitors of inorganic salts deposits;
- inhibitors and removers of asphalt, resin and paraffin deposits;
- reagents to reduce the viscosity of the oil.

ADVANTAGE OF WORK WITH US - INTEGRATED APPROACH TO SOLVING TASKS

MONITORING, RESEARCHES

MANUFACTURE OF CHEMICAL PRODUCTS

SCIENTIFIC DEVELOPMENT

AUTHOR'S SUPERVISION, SERVICE MAINTENANCE

EXPERIMENTAL-INDUSTRIAL TESTS

TECHNOLOGIES OF ENHANCED OIL RECOVERY AND OIL PRODUCTION INTENSIFICATION

JSC «NIInefteprom chim» provides a set of solutions for enhanced oil recovery and oil production intensification which ensures maximum efficiency and profitability. The technologies are aimed at optimizing the parameters of hydrocarbon extraction from productive formations and reducing the costs of long-term operated deposits, involvement into development of undrained and remaining oil reserves.

01

Water production restraining	SNPKh-9633, SNPKh-9640, SNPKh-PUS	Increasing the efficiency of developing heterogeneous reservoirs with high water-cut (more than 80%)
Straightening the injectivity profile	SNPKh-9633, SNPKh-9640	Increase in oil extraction during normal water flooding in conditions of heterogeneous reservoirs with any mineralization of the formation and injected waters and high water-cut of well production (60 - 90%)
Repair and insulation work	SNPKh-3002	Tamponing of the zones of losses and water entries in the processes of drilling and repair of the oil and gas wells
Oil production intensification in carbonate reservoirs	SNPKh- 9010, SNPKh- 9633 (SNPKh-9640) + acid composition	Effective intensification of the processed interval of the formation with the use of balanced oil deposits of acid systems, adapted to specific conditions
Intensification of oil production in terrigenous reservoirs	SNPKh- 9021, SNPKh- 9030, SNPKh- 9633 (SNPKh-9640) + acid composition	Recovery and increase in productivity of the wells by cleaning the bottom-hole zone from the formations forming a porous medium and deep drilling of the productive formation
Acid packets	SNPKh- 8903, SNPKh- 8905	Multifunctional complex additive for modification of the inhibited hydrochloric acid with hydrochloric acid and clay acidic treatments of the productive formation
Well-killing fluid	Based on the emulsifier SNPKh-9777	It is used for pumping, killing of the oil and gas wells
Enhanced oil recovery technologies of compound action	SNPKh-95M, PG-UVS	Designed to involve in the development of the undrained oil reserves due to an increase in formation coverage with water-flooding followed by an increase in oil displacement capacity of the injected water
Physicochemical methods of EOR	Chemical treatment with sonocatalyst	Combined effects on the formation by chemical reagents and acoustic waves

WATER SUPPRESSION LIMITATION

WELL PROCESSING TECHNOLOGIES BY HYDROCARBON COMPOSITION OF SURFACE ACTING AGENTS (HC OF SAA)

- for low formation temperatures (up to 60°C), a reagent SNPKh-9633 was developed
- for elevated formation temperatures (60-105°C), a reagent SNPKh-9640 was developed

Producing wells

Technology of limiting water inflows by HC of SAA (SNPKh-9633, SNPKh-9640).
The technology is designed to reduce the water-cut of the recoverable products and increase the oil flow rate of carbonate and terrigenous deposits with high water-cut (60-99%) and various mineralization of the waters that flood the well.
The method is based on the blocking of water-saturated zones of the formation by high-viscosity emulsion systems, which are formed while injecting HC of SAA. Emulsions arising in flushed zones of the formation are resistant to water erosion and are destroyed upon contact with oil, which ensures high selectivity of the method and does not impair the permeability of oil-saturated interlayers. Besides, the developed reagents have a hydrophobizing effect, are able to dissolve and disperse asphalt, resin and paraffin deposits, reduce the viscosity of the oil.
In order to increase the effectiveness of the use of HC of SAA, it is recommended to introduce a modifier and/or filler in its composition. Introduction of the additives makes it possible to increase not only the rate of forming the emulsion systems and their stability, but also the viscosity and strength. This contributes to strengthening of the blocking properties, lowering of sensitivity to depressions and a decrease in the possibility of emulsion removal from the formation.

EXPERIENCE IN APPLICATION

Index	SNPKh-9633	SNPKh-9633 with a modifier and/or filler
Quantity of well-proc.	more than 2 000	more than 900
Additional oil production (ton/well-proc.)	1000	more than 1200
Average daily incremental oil rate (ton/day)	2,0-5,0	2-6,5
Success	more than 70%	more than 75%
Reduction of the volumes of the associated water (ton/well-proc.)	more than 2000	more than 2500
Effect duration	1 year in terrigenous, more than 2 years - in carbonate reservoirs	1,5-2,5 years

In the first months after the impact of SNPKh-9640 with a modifier and / or filler, in most of the wells there was a decrease in the water-cut of the recovered products and an increase in the oil flow rate.

Injection wells

Technology of impact on the oil layer of HC of SAA through injection wells. The technology is designed to improve the indices of oil field development in the conditions of heterogeneous formations with different mineralization of the formation and injected waters and high water-cut of well production.
The method is based on the ability of the reagent «hydrocarbon solvent-composition SAA- mineralized water» to form viscous stable gel-like emulsions with an external hydrocarbon phase, which facilitates the redistribution of filtration flows and alignment of the displacement front in the injection wells. This ultimately leads to a reduction in water-cut and an increase in oil flow rates in the producing wells. Besides, the technology has a hydrophobizing effect, is able to dissolve and disperse asphalt, resin and paraffin deposits, reduce the viscosity of oil.

EXPERIENCE IN APPLICATION OF TECHNOLOGY SNPKh-9633 (114 areas):

- additional oil production – more than 2100 ton/well-proc.;
- success – 78%

Advantages and distinctive features of HC of SAA (SNPKh-9633, SNPKh-9640) and technologies based on them :

- low pour point (below minus 55°C);
- does not promote the swelling of clays;
- able to bind a large amount of water;
- promotes dissolution and dispersion of asphalt, resin and paraffin deposits;
- injection is not accompanied by foaming;
- standard oilfield equipment is used;
- supplied in commodity form, does not require dilution;
- low viscosity (usually 1.5 mm^2/s);
- low interfacial tension at the boundary with water (10^{-2}-10^{-4} mN/m);
- selectivity of effects.

SNPKH-PUS

It is designed for water shut-off works in the producing wells and for redistribution of the flow direction of filtration streams in the injection wells. When interacting with water, it forms a rubber-like heterogeneous system. It has an increased selectivity, i.e. when interacting with water, it forms a dense system and blocks water-saturated reservoirs and is subsequently taken out while developing producing wells.

ADVANTAGES:
selectivity, homogeneity, low viscosity, high adhesion, time 1 well/proc. does not exceed 6 hours, the standard oilfield equipment is used.

EXPERIENCE IN APPLICATION:
- quantity of processed wells – 120;
- technological effect on the productive wells – 300-1500 tons of the additional oil produced while reducing the water-cut by 30-70%;
- consumption per 1 m of working thickness is 0.5-1.5 tons.

REPAIR-INSULATING WORKS

SNPKH-3002
BACKFILL CURING COMPOUND

The technology is used to seal the production strings and eliminate the inter-string flows.
SNPKh-3002 has a low viscosity, which allows it to be pumped into low-pore, low-permeability formations. The compound has a wide range of curing time, it is used at formation temperatures up to 90°C. The strength of this composition for bending, pressing exceeds the strength of cement stone, which allows it to be used to isolate sections of production strings subject to high depressions during operation of the wells.

EXPERIENCE IN APPLICATION:
- quantity of processed wells - 150;
- success – 80%.

INTENSIFICATION OF OIL FLOW

ACID PACKAGE SNPKH-8903

A multifunctional complex additive for modification (ennobling) of an inhibited hydrochloric acid or a mixture of hydrochloric and hydrofluoric acids.
An additive, representing a balanced compound, includes: a retarder of reaction with the matrix of the rock, a mutual solvent, a complexing agent, a mixture of SAA, imparting demulsifying properties to the compound and promoting the washing away asphalt, resin and paraffin deposits.

ADVANTAGES:
- slowing the reaction rate of hydrochloric acid with the carbonate rock of the formation;
- uniform penetration into high- and low-permeability zones of the rock, thereby increasing the active drainage radius and involving the development of the entire thickness of the formation;
- preventing the formation of emulsions and deposits upon contact of acid and formation fluids;
- inhibition of precipitation in the formation after the reaction of acid with rock;
- decrease in the interfacial tension at the boundary of the contact «acid-oil» up to 0,01-0,07 mN/m.
- minimum costs for preparation of acid composition.

EXPERIENCE OF APPLICATION:
- number of treated wells – 400;
- additional oil production – 300 tons of oil per 1 well/treatment;
- average increase in oil production per 1 well – more than 2,0 tons/day;
- average duration of effect – more than 10 months;
- success of carrying out treatment of producing wells – more than 85%.

STABILIZER OF IRON IONS SNPKH-8905

SNPKh-8905 is designed to stabilize iron ions in the technological processes of acid treatment of the bottomhole zone of the well.
SNPKh-8905 restores trivalent iron ions to divalent iron ions. The rate of consumption of the reagent in the acid composition is 0,8 – 1,0 % rot. (5000 ppm Fe^{3+}), 0,5 - 0,7 % rot. (2500 ppm Fe^{3+})

ADVANTAGES:
- low freezing point (below minus 50°C);
- prevention of precipitation and formation of persistent emulsions with formation fluids;
- preservation of reservoir properties of the productive formation;
- is applicable in combination with other components of the acid composition and in hydrochloric acid of various concentrations;
- standard oilfield equipment is used.

CARBONATE DEPOSITS SNPKH-9010ZH
TERRIGENOUS DEPOSITS SNPKH-9021

The technologies are designed to intensify oil production from carbonate and terrigenous deposits, to prevent the formation of oil emulsions and to effectively clean the bottom-hole zone.

ADVANTAGES:
- thermal stability up to 80°C,
- the ability to stabilize Fe^{3+} ions,
- inhibition of scaling processes,
- optimization of raw materials base,
- competitive cost.

THE EFFECT IS REACHED BY:
- increase in the radius of active drainage of the bottom-hole zone of the well as a result of partial dissolution of the rock skeleton and dispersion of clay particles;
- purification of pore channels from mechanical impurities, dispersed clay and asphaltene-resin-paraffin deposits;
- reduction of capillary forces at the oil-water boundary;
- prevention of formation of oil-acid emulsions;
- effective cleaning of the bottom-hole zone from the formations colmataging a porous medium.

EXPERIENCE IN APPLICATION SNPKh-9010ZH

Development target	Tournaisian and Bashkirian stages	Bashkirian stage, Vereiskian horizon	Kashirskian-Podolskian horizon
Additional oil production per 1 well/proc.	1270	600-1000	860
Success, %	93	85	90
Average increase in oil flow rate, ton/day	2,0	2,1	2,3

EXPERIENCE IN APPLICATION SNPKh-9021

Main development targets	Kynovian, Bobrikovian horizons	Melekesskian horizon	Achimovsky suite	Vasyugan, Megion, Wartovsky Suites
Additional oil Production per 1 well/proc.	1145	600	1360	1300
Success, %	100	—	100	82
Average increase in oil flow rate, ton/day	2,1	1,6	1,6-6,0	2,0-20,0 (av. 6,0)

TECHNOLOGY OF DIRECTED ACID PROCESSING OF HIGH-EXCEPTED PLASTS

The technology is designed to increase the efficiency of acid processing in conditions of heterogeneous carbonate or terrigenous deposits with different salinity of produced water with high water cut (more than 80%).
The method is based on increasing the efficiency of acid processing by blocking zones with increased permeability. Blocking of permeable zones is carried out with the help of viscous gel-like emulsion systems of inverse type, formed upon contact of DCU surfactants with mineralized waters, watering the well. The acid injected after it is sent not to zones with high permeability, but to oil-saturated low-permeability zones that were not previously affected by the impact.

EXPERIENCE IN APPLICATION (43 wells-proc.):
- increase in oil production rate by 1.5 – 5 times;
- additional oil production – more than 800 tons/well-proc.;
- reduction of the volume of associated water – more than 1000 tons / well-proc.;
- the average duration of the effect is more than 1 year;
- the success of the method is more than 70%.

WELL KILL OPERATION

EMULSION-BASED WELL-KILLING FLUID

Emulsifier SNPKh-9777 is designed to produce invert emulsions, used:
- for killing oil and gas wells;
- as a basic reagent for the preparation of process fluids;
- when developing oil and gas condensate fields;
- before acidic BHT (bottom-hole treatment) for temporary isolation of highly productive watered interlayers.

The emulsion-based well-killing fluid is an invert emulsion:
- dispersion medium - hydrocarbon solution of SNPKh-9777 emulsifier,
- dispersed phase - water mineralized by various salts.

The viscosity and density of the well-killing fluid is controlled by the ratio of the phases and the degree of water mineralization.

ADVANTAGES:
- preservation of reservoir characteristics of the productive formation;
- output of the well to the operating mode in the shortest possible time, without loss of oil flow rate, with a possible reduction in water cut in production;
- regulation of the density of the well-killing fluid in a wide range from 1,0 to 1,6 g/cm^3;
- thermal stability up to 90°C;
- high sedimentation resistance.

PHYSICAL-CHEMICAL METHODS OF EOR

CHEMICAL PROCESSING WITH SONOCATALIZER

The technology is based on a combination of chemical and physical methods of increasing oil recovery. The use of chemical reagents and physical fields allows to achieve a synergistic effect: significantly increase the efficiency of processing.
The innovative method involves injection of acid composition into the reservoir (SNPKh-9010ZH, SNPKh-9021 (9030) or hydrochloric acid, modified by the addition of SNPKh-8903A) and treatment with acoustic waves.
Combined application allows:
- to increase the penetration of acid composition into the formation by several times;
- controllably activate the chemical reaction in the zone of acoustic influence.

Depending on the characteristics of the treated wells, it is possible to use acoustic waves of an ultrasonic range, as well as acoustic shock waves.

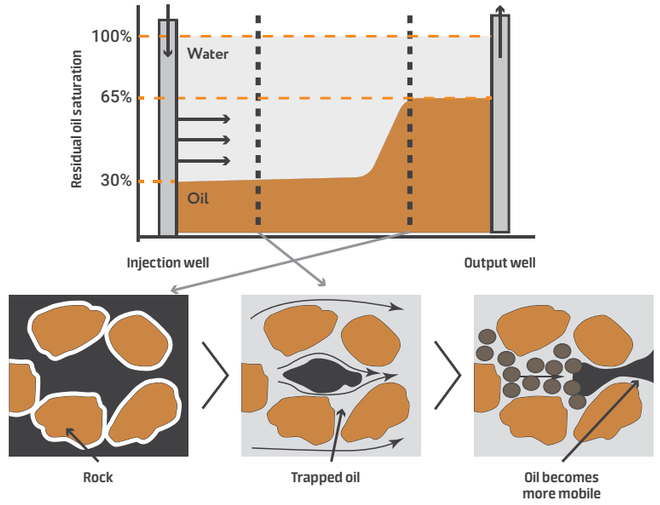
LEVELING OF PROFILE OF WATER INJECTION

MODERNIZATION OF TECHNOLOGIES OF INTEGRATED IMPACT ON FORMATION

The technologies are designed to involve in development of undrained oil reserves due to the increase in the formation coverage with waterflooding followed by an increase in oil displacement capacity of the pumped water.
The main point of the technology is to expand the application conditions and improve the processing efficiency by using the optimal combination of surfactants of different nature, the concentration of the components, and the dispersity of the working agents in the oil-displacing and blocking systems.
The technology differs in the fact that a micellar composition with high oil-removal properties is used as a surfactant composition, and a polymer and a fine-dispersed filler are used as a polymer-disperse system.

EXPERIENCE IN APPLICATION

Technology	Total quantity of treated areas	Additional oil production, thousand tons
SNPKh-95M	49	196,3
PG-UVS	53	190



DEVELOPMENT, MANUFACTURE AND INTRODUCTION OF CHEMICAL PRODUCTS FOR OIL PRODUCTION, TRANSPORTATION AND TREATING

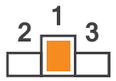
One of the areas of activity of JSC «NIInefteprom-chim» is to ensure the efficiency of oil production, collection, transport and treating. The use of various groups of additives and reagents ensures a reduction in operating costs and an improvement in operation of the chemical systems of the oil field.

02

Oil treating	Demulsifiers SNPKh- 4410, SNPKh-4103, SNPKh-4114, SNPKh-4315, SNPKh-4480, SNPKh-4460, SNPKh-4880, SNPKh-4901, SNPKh-4810 A
Pipeline protection, oil viscosity reduction	SNPKh-7909, SNPKh-7963
Fight with sulfate-reducing bacteria	Bactericides SNPKh-1050, SNPKh-1517
Cleaning of wells, field and pressure oil pipelines	Removers of paraffin SNPKh-7p-14, SNPKh-7870, reagent SNPKh-7890 (in the form of aqueous solutions)
Protection of underground equipment	Corrosion inhibitors SNPKh-6030, SNPKh-6418, SNPKh-6035, SNPKh-6825, SNPKh-6438, SNPKh-6201
Preventing paraffin deposits and salts deposits on pump and underground equipment of the well, in flow-out lines and oil-gathering lines	Inhibitors of asphalt, resin and paraffin deposits SNPKh-IPG-11, SNPKh-7941, SNPKh-7920, SNPKh-7909, SNPKh-7963, SNPKh-7912M Inhibitors of salts deposits SNPKh- 5311-T, SNPKh-5312 (T,C), SNPKh-5313 (C, N), SNPKh-5314, SNPKh-5316, SNPKh-5317

DEMULSIFIERS

They are used in the process of dehydration and desalting of oil in the gathering systems and in the oil treatment facilities in a wide range of temperatures; for deep desalting of oil in oil refineries; for dewatering of fuel oil, processing and utilization of industrial wastewater; for destruction of the intermediate layers stabilized by mechanical impurities (including iron sulfide) associated with asphalt, resin and paraffin deposits.



JSC «NIInefteprom chim» is the leader in the production of demulsifiers in Russia.

Brand	Regions of application	Description
For deep dehydration and desalting of oil, they are effective in a wide range of temperatures at low specific consumption (oil-soluble, water-dispersible)		
SNPKh-4103	KhMAA – Yugra	Effective for dehydration of high-viscosity stable emulsions of the Devonian and carboniferous horizons. Has the ability to inhibit asphalt, resin and paraffin deposits
SNPKh-4315	Perm Territory, Krasnoyarsk Territory, Komi Republic, KhMAA – Yugra, Sakhalin Region, Irkutsk Region, Volgograd Region, Republic of Tatarstan, Republic of Daghestan, Krasnodar Territory.	Has anticorrosive properties, is highly effective for destruction of stable water-oil emulsions, dehydration of fuel oil, processing and utilization of industrial wastes
SNPKh-4460	Saratov Region, Ulyanovsk Region, Volgograd Region, Republic of Tatarstan, Perm Territory, Komi Republic, KhMAA - Yugra, Tyumen Region; Kazakhstan	Effective in the treatment of mixtures of emulsions of different horizons. Provides rapid separation and purity of the bottom water
SNPKh-4880	Saratov Region, Ulyanovsk Region, Samara Region, Perm Territory, YaNAA	Promotes effective destruction of the stable intermediate layers, forms a clear interface between the phases. Has anticorrosive properties and the ability to inhibit asphalt, resin and paraffin deposits
SNPKh-4810A	Komi Republic, KhMAA - Yugra, Tomsk Region	Effective for dehydration and desalting of heavy high-viscosity oils
SNPKh-4901	Udmurtian Republic, Ulyanovsk, Region, Tomsk Region, Novosibirsk Region	Provides rapid separation and purity of the bottom water
For preliminary water discharge and viscosity reduction of water-oil emulsions, they are effective in a wide range of temperatures at low specific consumption		
SNPKh-4114	Republic of Tatarstan, Udmurtian Republic, Orenburg Region, Perm Territory, Komi Republic, Sakhalin Region; Kazakhstan, Uzbekistan	Oil-soluble, water-dispersible. Provides rapid separation and purity of the bottom water, can be used in oil gathering systems and oil treatment plants
SNPKh-4410	Samara Region, Republic of Tatarstan, Krasnodar Territory, Orenburg Region, Republic of Bashkortostan; Tajikistan, Uzbekistan	Water-soluble. Provides rapid separation and cleanliness of the bottom water. Effective for dehydration and desalting of oil in oil treatment plants, as well as for deep desalting of oil in oil refineries
For the processing of oil sludge, the destruction of true cuff-layer water-oil emulsions, stable intermediate layers stabilized by a large number of mechanical impurities, including iron sulphide		
SNPKh-4802	Republic of Tatarstan, Perm Territory; Kazakhstan	Water-soluble. Produced in the form of several brands, depending on the properties and composition of stabilizers of stable intermediate layers, persistent slop oils, oil sludge. Significantly reduces the content of iron sulphide, due to destruction of a stable intermediate layer it contributes to obtaining an additional volume of commercial oil

CORROSION INHIBITORS

With continuous feeding, the corrosion processes of oilfield equipment and pipelines significantly slow down. Can be used to suppress corrosion in the water-circulating cycles of the oil refining and metallurgical industries.

Brand	Regions of application	Description
SNPKh-6030	Republic of Tatarstan, Perm Territory	Water-soluble. At dosages of 25-30 g/m^3 provides a reliable protection in highly mineralized media containing H_2S, CO_2 and in their absence. Film-forming, has a high aftereffect. Improves the rheological properties of oils
SNPKh-6035	Tomsk Region, Perm Territory	Water-soluble. Highly effective in highly mineralized Devonian horizon environments, as well as in aggressive oilfield environments containing dissolved gases: CO_2, O_2, H_2S. Protective effect at specific consumption of 20-30 g/m^3 is 90-95%. Has a high aftereffect
SNPKh-6825, SNPKh-6418	Ulyanovsk Region, Republic of Tatarstan, Perm Territory, Komi Republic, Irkutsk Region; Uzbekistan, Kazakhstan	Water-soluble. Has a bactericidal action, is effective in corrosive environments containing hydrogen sulphide and carbon dioxide
SNPKh-6201	Republic of Tatarstan, Ulyanovsk Region, Perm Territory, YaNAA; Uzbekistan	Water-dispersible. Effective in corrosive environments containing hydrogen sulphide and carbon dioxide. At dosages of 20-30 g/m^3 the protective effect is 88-92%
SNPKh-6438	Perm Territory	Water-dispersible. It exhibits a high anti-corrosive effect in corrosive environments containing hydrogen sulphide, as well as in hydrochloric acid media used in bottomhole formation treatments

INHIBITORS OF ASPHALT, RESIN AND PARAFFIN SEDIMENTATIONS

Prevent asphalt, resin and paraffin sedimentations in oilfield equipment and pipelines during oil production, storage and transport.

Brand	Regions of application	Description
SNPKh-7941 SNPKh-7941 M SNPKh-7920 SNPKh-7920 M SNPKh-7821	Republic of Bashkortostan, Udmurtian Republic, Samara Region, Perm Territory; Belorussia	For preventing paraffin sedimentations during the extraction and transportation of oil. Intended for oils of the complicated type
SNPKh-IPG-11	Republic of Bashkortostan, Perm Territory, Udmurtian Republic, Krasnodar Territory, Tomsk Region	For preventing paraffin-hydrate sedimentations in oil production and transportation
SNPKh-7909 SNPKh-7912 M SNPKh-7963	Republic of Bashkortostan, Udmurtian Republic, Saratov Region, Ulyanovsk Region, Samara Region, Perm Territory	For preventing paraffin sedimentations in the oil extraction of complicated types, viscosity reduction when transporting crude oil
SNPKh-7890	Krasnodar Territory	For flushing oilfield equipment from sedimentations with hot aqueous solutions
SNPKh-2005 (depressant)	Irkutsk Region, Republic of Kalmykia; Azerbaijan	For reducing the pour point and oil viscosity, improving the rheological characteristics of commercial oils

REMOVERS OF ASPHALT, RESIN, AND PARAFFIN SEDIMENTATIONS

Brand	Regions of application	Description
SNPKh-7870, SNPKh-7P-14	Volgograd Region, Republic of Kalmykia, Krasnoyarsk Territory, Irkutsk Region; main pipelines in various regions of Russia	Removal of asphalt, resin and paraffin sedimentations in well and other oilfield equipment
SNPKh-7850	Irkutsk Region, KhMAA - Yugra	Removal of paraffin-hydrate plugs, sedimentations

INHIBITORS AND SCALING SOLVENTS

Designed to protect oilfield equipment in the processes of oil extraction and treatment from sedimentations of inorganic salts, including sulfates, calcium and magnesium carbonates, barium sulfate, as well as iron compounds.

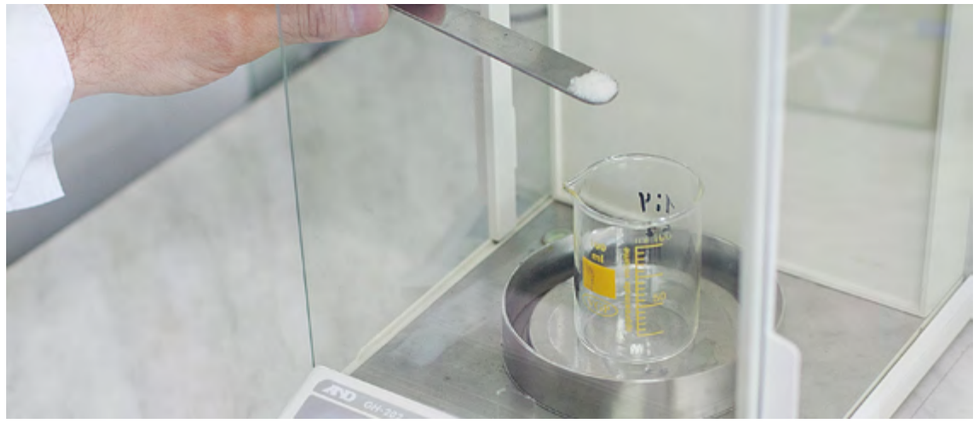
Brand	Regions of application	Description
SNPKh-5311-T	KhMAA - Yugra, Orenburg Region	For preventing calcium carbonate sedimentations
SNPKh-5312, SNPKh-5316, SNPKh-5325, SNPKh-5350TS SNPKh-5315	Samara Region, Republic of Tatarstan, Udmurtian Republic, Astrakhan Region, Orenburg Region, Perm Territory, Krasnoyarsk Territory, Komi Republic, Irkutsk Region	For preventing sedimentations of sulfate and calcium carbonate in conditions of high mineralization of commercial waters
SNPKh-5313, SNPKh-5314	Republic of Tatarstan, Republic of Bashkortostan, Komi Republic; Kazakhstan	For preventing sedimentations of iron sulphide, iron oxides and hydroxides, barium sulfate, calcium carbonate.
SNPKh-5317	Republic of Kalmykia, KhMAA - Yugra	For preventing sedimentations of sulfate and barium carbonate, strontium, carbonate and calcium sulfate
SNPKh-53R	Ural-Volga region, Western Siberia, Far East; Kazakhstan	For dissolving carbonate sedimentations with an admixture of sulphides and iron oxides on the surface of well equipment, pipelines of the oil and water preparation and transportation system, as well as in heat and power equipment

BACTERICIDES

Brand	Regions of application	Description
SNPKh-1050 SNPKh-1517	Republic of Tatarstan, Komi Republic, Irkutsk Region; Azerbaijan	Protection from sulfate-reducing bacteria (SRB) in the well and oilfield equipment

NEUTRALIZERS OF HYDROGEN SULFIDE AND MERCAPTAN

Brand	Regions of application	Description
Desulphon-SNPKh-1200 Desulphon-SNPKh-1100	Orenburg Region, Republic of Bashkortostan, Udmurtian Republic, Komi Republic; Kazakhstan	For absorbing hydrogen sulphide and light mercaptans in commercial oils (preparing oil for its delivery according to GOST)



LABORATORY STUDIES AND SERVICES ON ENGINEERING SUPPORT

JSC «NIInefteprom chim» does not limit its activity only to supplies of reagents for enhanced oil recovery (EOR), bottom hole treatment (BHT) of the oil formation and repair and insulation works (RIW). The Institute has a qualified personnel for introduction of the technologies to impact on productive horizons of wells in order to optimize the development of oil fields and enhance the oil recovery of the formations. The large practical experience of our specialists allows us to conduct consulting and technological support of the developed products and technologies at the highest level.

03

One of the priority activities of JSC «NIInefteprom chim » is preliminary laboratory research and modeling of physical and chemical methods of impact on the oil formation , selection of the most effective reagents and technologies aimed at solving problems in the oil industry.

ACCREDITED LABORATORY

Laboratory of JSC «NIInefteprom khim» is accredited by the Federal Agency for Technical Regulation and Metrology of the Russian Federation for technical competence and independence in accordance with GOST (registration number in the register ROSS RU.0001.22ХИ50).

CONDUCTED RESEARCHES:

- Research of the demulsifying ability of water-oil emulsion demulsifiers.
- Determination of the protective effect of corrosion inhibitors by gravimetric and electrochemical methods.
- Determination of the protective effect of corrosion inhibitors on the pilot plant «Monicor-Stand».
- Determination of the physical and chemical properties of demulsifiers, corrosion inhibitors, scaling inhibitors: dry residue, density, kinematic viscosity, freezing temperature, pH, hydroxyl number, mass fraction of phosphorus, mass fraction of nitrogen, amine number, acid number, mass fraction of halide ions.
- Determination of the content of chloride salts, mechanical impurities, iron sulphide, the mass fraction of water in oil.
- Determination of the content of hydrogen sulphide and dissolved oxygen in the formation (bottom-hole) water.

ATTESTED LABORATORY OF PHYSICO-CHEMISTRY AND MECHANICS OF THE FORMATION

CONDUCTED RESEARCHES:

- Filtration studies on core material and models of the formation.
- Analysis of the efficiency of the technologies EOR and BHT in the conditions close to the formation conditions of a particular field.
- Determination of the displacement coefficient of oil by water in the laboratory conditions of a stationary filtration.
- Analysis of porosity and structure of pore space. Assessment of the impact of chemicals on the rock.

ATTESTED LABORATORY OF CHEMISTRY OF COORDINATION COMPOUNDS

CONDUCTED RESEARCHES:

- Testing of the formation and waste waters.
- Determination of the chemical composition of salt deposits.
- Testing and selection of scale inhibitors to the conditions of a particular enterprise.
- Determination of the residual content of scale inhibitors in the aqueous medium during their application.
- Testing of scale inhibitors in accordance with the guidelines of the leading oil and gas companies.

EQUIPMENT FOR OIL AND GAS INDUSTRY

JSC «NIIneftepromkhim» has more than 20 years of experience in the supply and installation of laboratory equipment, materials, integrated laboratories, laboratory furniture and other equipment and materials for various industries, being a partner of many domestic and foreign manufacturers.

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For determining the effectiveness of corrosion inhibitors, paraffin deposits, demulsifiers directly on the fields and in laboratories, our company develops and delivers specialized equipment, portable laboratories, laboratory complexes.

JSC «NIINEFTEPROMCHIM» SUPPLIES THE DELIVERY OF EQUIPMENT FOR:

- analyzes of oil, oil products and gases;
- chemical and petrochemical plants;
- environment protection;
- hydro- and power plants;
- plants for the production of cement and other building materials;
- analysis of chemical reagents and drilling fluids;
- food Industry;
- testing of acid compositions (field laboratory).

JSC «NIINEFTEPROMCHIM» OFFERS:

- assistance in designing and complex equipping laboratories;
- installation, starting-up and adjustment of equipment, training of personnel;
- warranty and after-sales service;
- operative solution of technical issues.

Also, an innovative foundry is developing in a separate direction. Application of the technology of 3D modeling, scanning, tomography research process, the technology of computer analysis, 3D printing with the use of the most modern equipment, provides:

1. Production of functional prototypes, according to the design and technological documentation of a customer (the products are manufactured and operated as part of the main product).
2. Manufacture of spare parts for modern imported equipment and machines (import substitution) in motor vehicle industry, aircraft industry, power industry, oil and gas industry, etc., including with the use of reverse engineering.
3. Manufacture of small series for undergoing the researches and confirming performance characteristics of the products.
4. Manufacture of products of complex design (biodesign, etc.), which can not be produced by traditional technologies.

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