

# OVERVIEW OF THE COMPANY'S ACTIVITY

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- Group of company "Petrotool":
  - "Petrotool"
  - "Petrotool directional drilling"
  - "Burtis" drilling equipment
  - "AzTec Drilling"
- "ODC":
  - IPM & Turnkey drilling

# **History**



- 2006 Founded of "Petrotool". Drill bit services;
- 2008-2009 Rental, engineering & technological support of hydraulic bottomhole motors, hydro-mechanical bidirectional drilling jars and related equipment. Launch of Non destructive laboratory;
- 2010 Organized production facility for the manufacturing and repair of BHA elements, blind boxes and tool extractors;
- 2011 Development and production of telemetry system «Target» with link electromagnetic facility. The begins provide company to informational and technical support in the directional and horizontal wells construction using this system);

- 2012 Drilling motor services. ISO (MQS, OT и ΠБ, Ecology). Development and manufacturing of MWDs (EMCL) «Target». Founded of "Petrotool DD";
- 2013-2014 Production & repair of PDC bits and BHA's elements of own designs. Opened a separate division in Samara, represented by highly qualified designers. Certification according to API standards. Drilling mud service includes. Manufacturing of mobile units;
- 2015 The company's range of services was composed of progressive, hightechnology, integrated service allowing to combine different types of services and technologies within a single project, ensuring compliance with the customer's requirements.

#### **Structure**



# Group of companies "Petrotool" (Manufacturing and drilling services - IPM)

"Oktyabrsky DC" Turnkey drilling

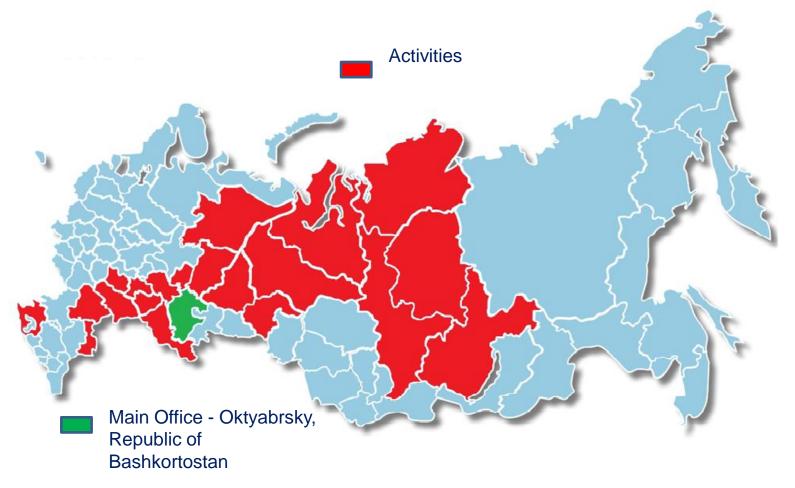
"Burtis"
Drilling
equipment

"AzTek
Drilling", LLC
Manufacturing,
mud &
sidetracking
services

"Petrotool
DD", LLC
Directional
drilling service



# Geography



- More than 600 employees
- Highly qualified staff from 5 to 25 years experienced in oil & gas industry

# Office and Manufacturing "Petrotool"



LLC "Petrotool" 14th February 2006.

Head office and manufacturing facility are located in Oktyabrsky, Bashkortostan Republic

- More than 300 employees
- Highly qualified staff with experience in the oil and gas industry from 3 years and over.

The total area  $= 5520 \text{ m}^2$ 



#### "Petrotool"



#### MAIN ACTIVITY

- PDC bits manufacturing;
- Metallworking & BHSs elements manufacturing (subs, reamers, valves, stabs and etc.);



- Non destructive inspection;
- Drill bit services;
- IPM projects;

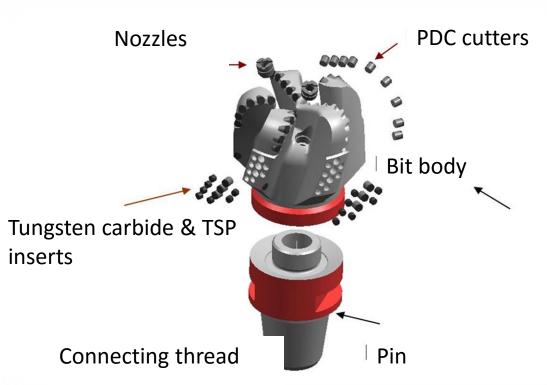


### **PDC** bits & BHAs elements



# 3D modeling allows to create the optimum design for specific drilling conditions







#### **PDC** bits

#### Product line:

- PM & P matrix & steel body PDC bits
- PB & PBM matrix & steel body Bi-center bits
- PC Steel body coreheads

- Size range 3.76 17.5ins
- Steel & matrix PDC
- Bi-center bits
- Coreheads
- Reamers







## PDC bits & BHA's elements

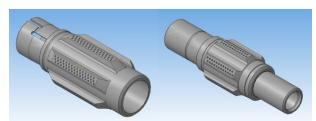
## Metalworking & BHSs elements

Group of equipment	Type of operation	Technical features	
CNC machining centers	Turning operations of all kinds	Diameter of billets:  0,39 – 20,87 ins  Length of component billets:  0,79 – 78,74 ins	
Milling machining centers	Complex 5-axis simultaneous machining of billets with high precision	Diameter of billets: 1,18 – 35,43 ins Length of component billets: up to 55,12 ins	

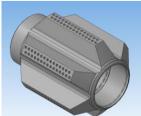


#### **BHAs elements**

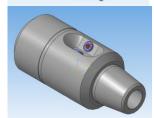
Floating & collect straight bladed centralizers



Centralizers & stabs for motors



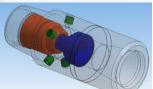
 Near bit subs with axial channel and two nozzles to creating high pressure fluid jets



Straight and spiral bladed reamer stabs



Dumb subs







#### **Core business**

Inspection of the equipment and materials by non-destructive methods of testing in the manufacturing, installation, repair, reconstruction and technical diagnosis of oil and gas industry units, explosive and chemically hazardous manufactures.

Distinctive features of non-destructive testing laboratory when making flaw detection of drill pipes, casing strings of pump-compressor pipes:

- Customer requests are run with high time efficiency;
- Flexible service prices;
- Availability of modern control devices relevant to both Russian and international methods of control;
- Availability of special equipment for washing and steam cleaning of inspection units under temperature of 130 ° C and pressure up to 200 bar (5 mobile units);



# Non destructive inspection

Non-destructive testing in the manufacturing, installation, repair, reconstruction and technical inspection:

Equipment for Oil and Gas Industry:

- Well-drilling;
- Well operation;
- Well development and well repairing;
- Gas and oil pumping stations;
- Gas and oil pipelines;
- Tanks for oil and petroleum products;

Equipment for explosive and chemically hazardous manufactures:

- Equipment for chemical, petrochemical manufactures and refineries, operating under pressure up to 16 MPa;
- Industrial pipelines, steam and hot water pipelines;



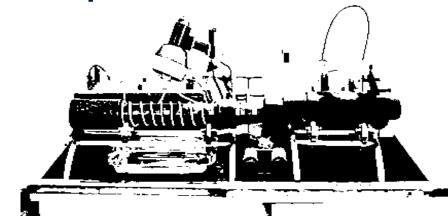
## Non destructive inspection

## Types of inspection

- Ultrasonic inspection:
- ultrasonic testing;
  - ultrasonic thickness testing;



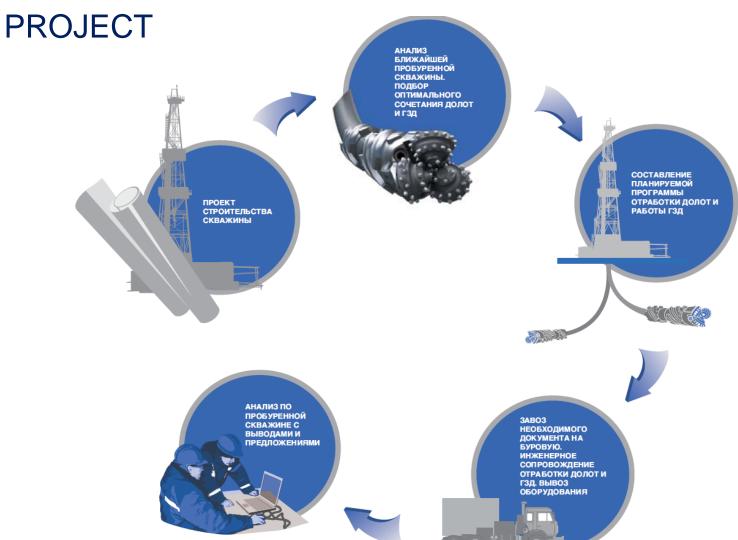
- Magnetic inspection:
- magnetic powder testing;
- Dye-penetrant testing
- Visual and measuring inspection



## **Drill bit services**



CYCLES OF COOPERATION DURING THE WHOLE TIME



### Fleet of motors and Jars



- 98 mud motors (4,02 ins 9,61 ins);
- Fit with removable stabilizers of various sizes and nodes adjust the skew angle;
- Fit with overflow valves and catch devices;
- Over 50 modifications;
- Bearing section with tungsten carbide coating of radial bearings and carbide axial bearings;
- 20 double action hydro mechanical jars;







# "Petrotool" Directional Drilling

Head office and mechanical workshop for repair and prevention of telemetry equipment are located in Oktyabrskiy, Bashkortostan Republic.

Highly skilled engineering staff with experience in drilling of directional and horizontal wells with the use of MWD systems for more than three years.

90% of employees have higher education, 10% secondary professional education.

Today the company has over 20 production batches and continues to increase.





# "Petrotool" Directional Drilling

#### Services

 DD service (MDW systems with electromagnetic and hydraulic link)

#### **Tools**

- "Target" MWD system with electromagnetic link
- PDT, APS Hydraulic link MWD systems;

#### Development

- Development and production of MWD system «Target» with hydraulic link;
- Near bit module NBM (gamma & incl);
- Trials of our own Hydraulic link MWD system;
- Development of resistivity meter;







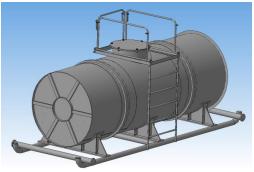
# "Burtis" Surface drilling equipment

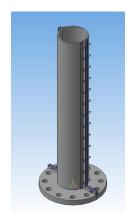


Production of surface drilling equipment

Petro Tool

- Compressor porta cabin;
- Liquid tanks;
- High pressure manifold;
- Metal header;
- Communications box;
- Road pallets;
- Pump blocks;









# "AzTec Drilling"

LLC, "AzTec drilling" is a service company specialized in designing and implementing high-tech solutions in drilling of wells in oil & gas industry, enhanced oil recovery, and remedial cementing works

- The company was founded in 2012 by engineers oil industry workers with many years experience in the industry;
- More than 90 employees;
- Highly qualified staff with experience in the oil and gas industry from 3 years and over;

Russian Federation, Republic Tatarstan, Aznakaevo, Leninogorsk street tract 5

#### **AzTecDrilling**

### **Core businesses**

## DRILLING



- Window cutting service in one run, whipstock installation
- Mud services
- Mobile units







#### **WORKOVER OPERATIONS**

- Stimulation of oil production of bottom hole zone
- Remedial cementing



# **Cutting of window**

Window cutting service in one run, support for installing whipstock





TECHNICAL FEATURES						
ITEMS	AzTec-5.5	AzTec-5.7	AzTec-6.6	AzTec-7	AzTec-9.6	
Casing diameter, ins	5 1/2"	5 3/4"	6 5/8"	7"	9 5/8"	
Whipstock length, ins	98.4	102.4	118.1	118.1	157.5	
Anchor length, ins	118.1	118.1	118.1	157.5	157.5	
Anchor diameter, мм	4.6	4.6	5.4	5.7	7.7	
Mill diameter, мм	4.3-4.7	4.8-5.0	5.6-5.8	5.9-6.2	8.5-8.8	
Chamfer wedge angle, deg	2,0 – 2,5					
Weight of all tools, not greater, kg	551.1	661,4	970,0	1190,5	3527,4	

#### **AzTecDrilling**

### **Mud service**

Mud department with the support of group of companies "Mirico" offers complete service for the preparation and maintenance of new systems of drilling muds.

#### **Mud service**

- Mud programs for specific geological and technical-technological conditions
- Quality and trouble-free operations at high ROP
- Providing quality of well completion and preservation of reservoir properties
  of productive formation through inhibition of active clay phase and reducing
  the penetration of the filtrate into the reservoir
- Environmental safety of mud agents and materials, the solution while drilling in protected environmental zones

#### **Drilling fluid systems**

- Mud fluid
- Polymer
- Inhibited by calcium, aluminum salts and potassium (gypsum-lime)
- Highly mineralized NaCl
- Biopolymer chlorine-potassium
- Emulsion



### Mobile units on chassis

Production activity of one of our division includes production of mobile units to the chassis with different options

- Mobile units are designed and manufactured by special technology in accordance with the normative documentation.
- The units are mounted on chassis of own manufacture and also could be installed on the chassis and on the sled.
- The outer walls of the units can be operated in the weather conditions of category 1, temperatures from -60 to +40C.
- All the parameters of the units and equipment are coordinated with the Customer, according to its technical specification





## Mobile units to the chassis











# "Oktyabrsky Drilling Company" ("ODC")



- Number of rigs
- Core business
  - IPM and turnkey drilling

- Equipment
- Activities

# Number of rigs

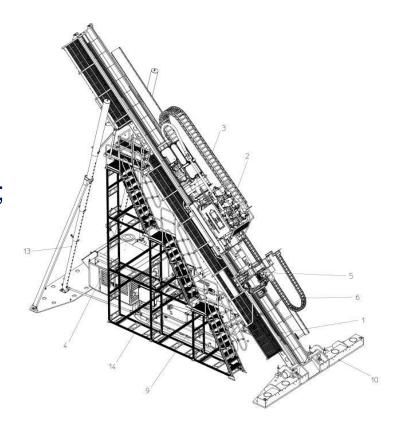


#### **TOTAL COUNT – 7 rigs**

- 4 units mobile unit **RG30** (396 832lbs)
   MD up to 9 842ft, WO & WS up to 19 685ft;
- 2 units slant rigs HDD ADI360 VS (330 693lbs)

Vertical & directional drilling;

1 unit mobile unit **RG40** (529 109lbs)
 MD up to 13 123ft, WO/WS up to 22 966ft;



# **Drilling equipment**

All rigs are equipped with high-tech equipment from leading world manufacturers:

Mi Swaco, Caterpillar, Allison etc.

- Mud cleaning systems (MI-Swaco)
- Pumps blocks (Allison, CAT, etc.)







# **Drilling services**

#### Core business

- IPM & Turnkey drilling
- Exploration drilling
- Production drilling of directional, horizontal and vertical wells of oil & gas
- Drilling of high viscosity and tight oils
- Service works for cementing casing and liners

## **Drilling services**

## IPM & Turnkey drilling

- Integrated services
- Supervising
- Administration and coordination of contractors
- Ensure required equipment and materials
- Coordination of the project with oversight and regulatory organizations
- Risks control



# **Current activity**



#### **Volgo Ural region**

- Republic of Bashkortostan (JSOC "Bashneft")
- Republic of Tatarstan (OJ-SC "Tatneft")

## **Timano Pechora province**

- Ukhta (OJ-SC "LukOil")
- Usinsk (OJ-SC "Zarubezhneft")







# QMS: ISO 9001-2008. API Monogram

In order to improve the efficiency of the organization and improvement of the management system since 2013 began the development and implementation of the quality management system corresponding to international standards ISO 9001-2008.





#### СЕРТИФИКАТ

Орган по сертификации общества TÜV SÜD Management Service GmbH удостоверяет, что предприятие **Petro Tool** ООО "ПетроТул" ул. Садовое кольцо 4а 452600 Октябрьский, Республика Башкортостан Российская Федерация в спелующей области лействия Разработка, произволство и поставка долот, бурголовок, калибраторов центраторов, стабилизаторов и переводников внедрило и применяет систему менелумента качества В результате аудита, номер отчёта 707048154

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Certificate of Authority to use the Official API Monogram

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4a Sadovaya Street

Oktyabrskiy, Bashkortostan

Russian Federation

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# Thanks!

www.petrotool.ru Georgiy.kuznetsov@petrotool.ru

+7 (34767) 6-02-50

+7 (927) 237 35 14