

## CLEANING OF WASTE WATER POLLUTED BY OIL AND PETROLEUM PRODUCTS WITH ENERGY WALKING WATER SUPPLY

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According to the BP Statistical Review of World Energy, Kazakhstan ranks 9th in the world in proven oil reserves<sup>1</sup>. Sorbents based on plant wastes with hydrophobic properties were studied (Table 1)

Table 1. The main parameters of sorbents on the basis of waste plant materials

Sorbents	Water absorption, g water / g. sorbent	Oil absorption, g. of oil / g. of a sorbent	Cleaning degree, %
Sunflower cake	3,3	4,4	72
Corn Cobs	3,1	7,2	89
Activated carbon	1,4	2,1	60
Birch coal	2,1	2,4	46
Cereal waste	5,3	10,8	78
Walnut shells	1,3	2,6	70

Amangeldy oil refinery North-West Conys was used as a model system (Table 2).

Table 2. Physical and chemical indicators of oil “North Western Conys”

Specifications	Indicators
Density at 20 ° C, kg / m <sup>3</sup>	845
Pour point, 0C	-3
Saturated vapor pressure, kPa (mm Hg)	45
Bulk Sulfur Content, % / / mechanical impurities, %	0,37 / 3,04 / 0,07

New technical solutions have been proposed with the aim of improving sorption methods using natural sorbents, which are currently the most effective for in-depth treatment of wastewater from oil and oil products.

### References

1. S.K. Myrzaliyeva., N. Zhexenbay. Effective Sorbents with High Adhesion for Oil Products. Research Journal of Pharmaceutical, Biological and Chemical Sciences №7, 2016, p 229-234