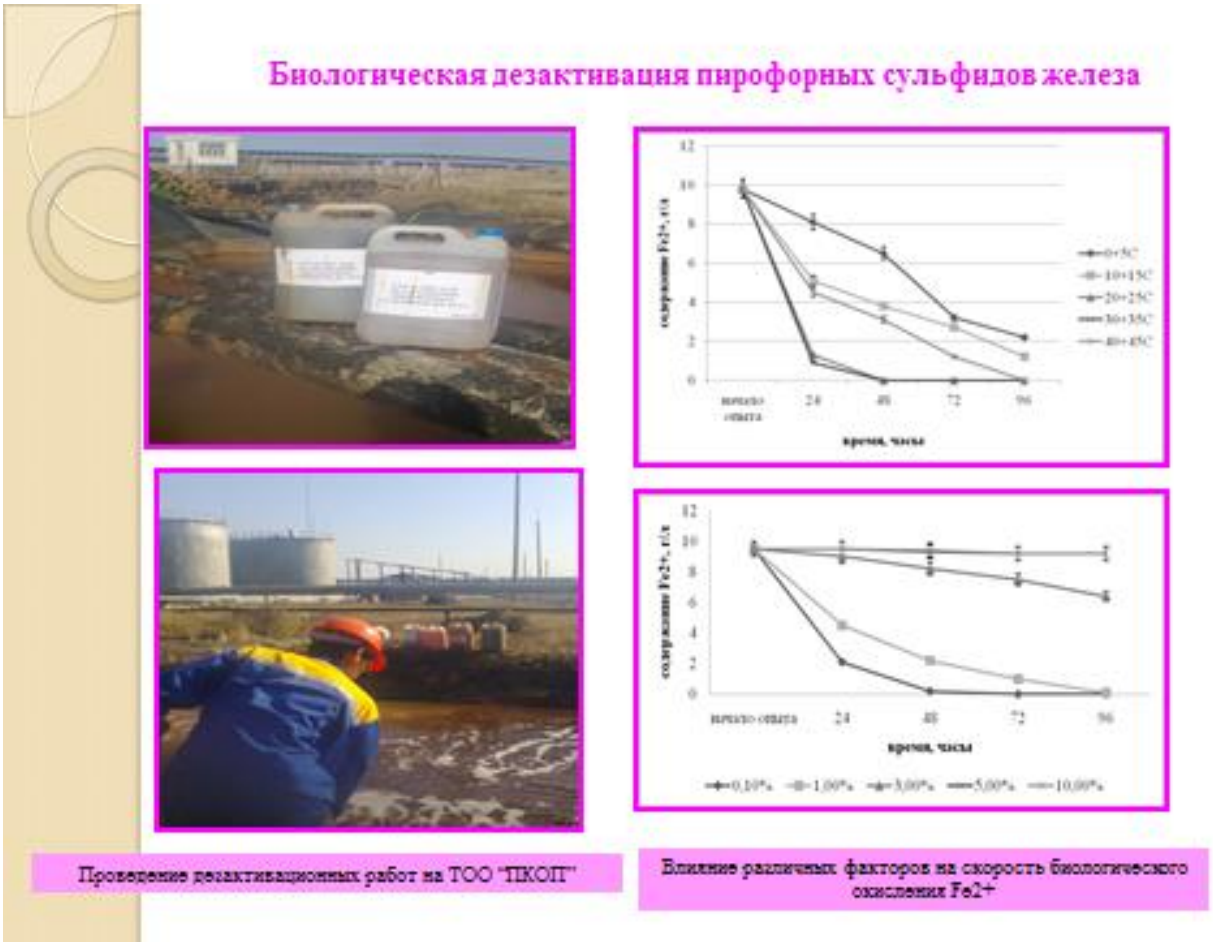
TECHNOLOGY OF BIOLOGICAL DECONTAMINATION OF PYROPHORIC IRON SULFIDES

The relevance of the problem: Pyrophoric deposits are compounds formed as a result of the interaction of hydrogen sulfide corrosion products, resinous substances, products of organic origin and mechanical impurities. These deposits have the property of self-ignition upon contact with oxygen in the air. Pyrophoric deposits can be formed during storage, transportation and processing of sulfurous oils and petroleum products on unprotected surfaces of reservoirs, tanks and pipelines, contain iron sulfides from FeS to FeS2, iron oxides FeO3 and FeO4 and free sulfur.

The aim of the project is to reduce the explosive hazard of waste.

Advantages over analogues: there are no analogues. Currently, methods of preservation of explosive waste are used. The technology was introduced at PKOP LLP in 2007.



Developers: a team of authors led by Doctor of Biological Sciences, Professor Issayeva A.U.

It comes from him↓

Commercialization of the results. The technology of biological decontamination of pyrophoric iron sulfides was introduced at PetroKazakhstan Oil Products LLP in 2007.

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Patent protection. There is 1 patent for the invention of the Republic of Kazakhstan and 1 Eurasian patent.

N п/п	Name	Output data	Authors
1	Способ дезактивации пирофорных сульфидов железа.	Патент РК №21619. 15.09.2009, Б.№9	Исаева А.У., Рубцова Л.В., Бишимбаев В.К., Ембердиев А.Ж., Жаркимбеков С.У., Манапова Н.М.
2	Способ биологической дезактивации пирофорных сульфидов железа	Евразийский патент 201500894(13) A1, 2015.01.29.	Исаева А.У., Бишимбаев В.К., Мухамеджанов Б.Г., Мырхалыкрв Ж.У., Успабаева А.А., Тлеукеева А.А.