



Inno Technologies Oy

OIL SLUDGE RECYCLING

Sludge processing at the customer's site with the actual division of fractions on refined oil, solids and water.

Finnish ECO-technologies
2017

BASIC DATA


Finnish group of companies InnoTech has developed the technology and the equipment for oil sludge recycling. The work of the Finnish equipment doesn't depend on a type or fractions of oil sludge.

Oil sludge is the oil production or recycling mineral oil waste. It is believed that an annual average of 5% of the turnover in the oil industry is oil sludge.

Existing recycling technologies are expensive and limited by various factors. For example, they can work with a particular type or fraction of sludge.

Development strategy of InnoTech technology intends to create a network of service companies for oil sludge recycling in the CIS, Scandinavian and Asian markets.

InnoTech invites investors and clients for mutually beneficial cooperation in the field of eliminating of the environmental problem - the elimination of oil waste.



Oil spills can have disastrous consequences for society; economically, environmentally, and socially.



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GENERAL INFORMATION

Our company has performed the full analysis of similar equipment worldwide. Taking into account all the problematic sides of different producers, we developed almost perfect solution technologically. All existing analogues work on mono horizontal reactors. In case of their failure the entire work process will be stopped. Operating range pollution is also very small, which leads to clogging of the main unit. Besides the installation data are much more expensive.

Our solution is universal and consists of 6 horizontal reactors. If one of them fails, the other 5 are still working, just the productivity is reduced a little. Also our range of pollution has no limits. In other words we work with any contamination. This is accomplished through the work of 2 blocks (coarse and light refinement), which removed the entire range of contaminants alternately. The output is a technical clean soil, water and petroleum product which can be delivered to the refinery.



The equipment is a mobile complex which is located in 40-foot sea container. The deployment takes up to 7 days.

SPECIFICATIONS

Parameters	Unit	Value	Comment
Productivity.	m ³ / h	30-50	depending on the fraction
Power consumption	kW	18-20	
Weight of the installation	kg	20 000	
Max. quantity of inclusions	mm	150	basic filtration
Max. content of solids	%	not limited	
Max. water content in the sludge	%	not limited	
Max. content of oil product	%	not limited	
The use of chemical reagents	g / m ³	less than 100	
Working with a liquid material		yes	
Working with a solid material		yes	
Operating temperature of the installation	°C	-18...+40	to -60 / option



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OIL SLUDGE RECYCLING

InnoTech performs oil sludge recycling at the customer's site or in Finland. The quality of recycling corresponds to ecological standards of the Russian Federation and the EU. For functioning in Russia - licenses related to collection, using, transportation and disposal of wastes of III-IV classes of danger.

VARIANTS OF WORK

Sludge processing at the customer's site with the actual division of fractions on: refined oil, solids and water.

- 💧 The quality of the extracted oil (the result of recycling):
 - 💧 The content of solids - no more than 0.2 - 1% of the volume of oil product
 - 🚰 The content of water (including molecular) - no more than 1-2%

COST OF PROCESSING

The cost of the oil sludge recycling depends on a combination of different factors, such as the timing of work, work conditions, etc.

The important role in the pricing of work has the final product. In the case of work at the customer's site, where produced oil is passed back to the customer in a purified form, - the cost of processing is charged on the fact of processing of 1m³.



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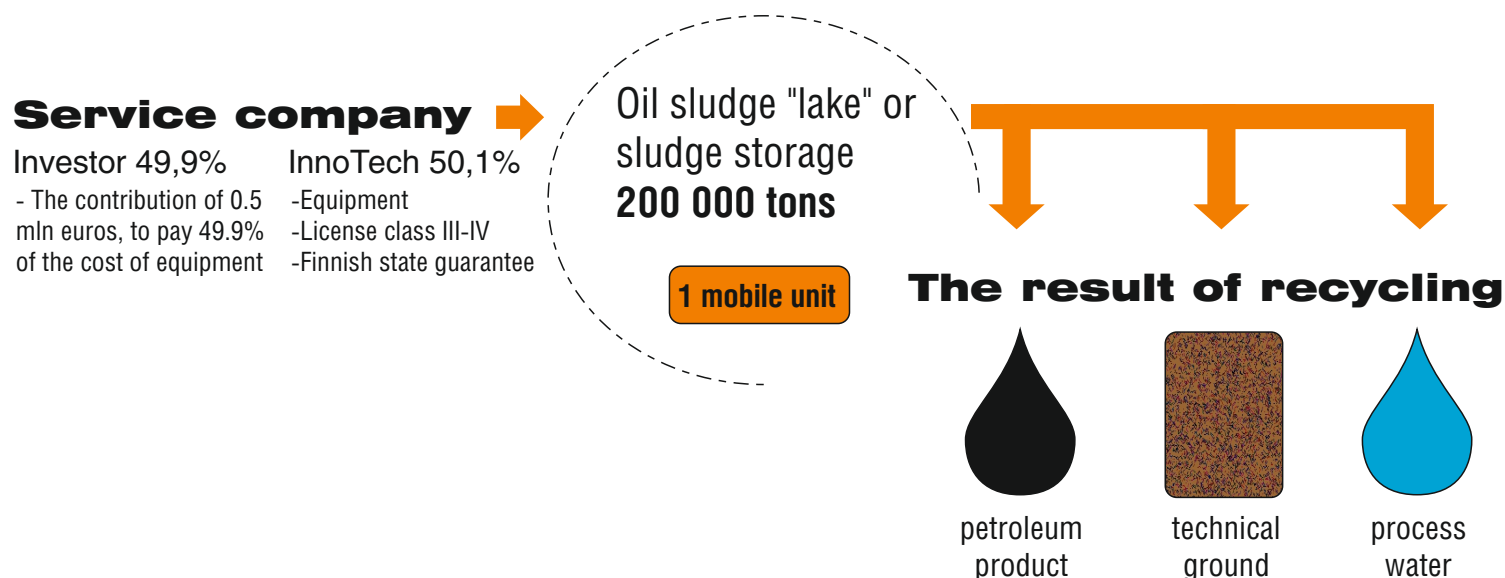


BASIC OFFER

InnoTech doesn't plan to sell the equipment. The Company's strategy is to create regional joint ventures with participation of investors. Our aim is to provide services for oil sludge recycling.

Equity investor's participation in the service company (JV) is 49.9%. InnoTech - 50,1%.

SCHEME OF WORK



MONETIZATION OF TECHNOLOGY

Costs (all) of extracting 1 ton of oil = 27 euro (1620 rubles. Rate 1/2017)

The selling price of refined oil = 158 euro (9500 rubles. Rate 1/2017)

Return on investment - 6 months since the start of work on the object.



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PROJECT FINANCE FOR PROCESSING 200,000 tons of sludge (example)

The example of calculation of oil sludge lake, where 65% of oil, 7% of solids and water.

Gross volume of oil sludge
Equipment productivity

200 000 tonne
20 m³ / h

The actual volume
The minimum rate

All recycling costs
Net quantity of refined oil
Sale of petroleum product

5,4 mln euro
100 000 tonne
15,8 mln euro

Staff, logistics, equipment, etc.
In fact, 65%, in calculation 50%
0.1 million tonnes x EUR 158 / tonne

Term of work on the object
Gross profit

15 months
10,4 mln euro

Working in 3 shifts (payment unit)

Calculations are presented on the basis of prices in Russia.
The cost of work in the EU are several times higher.



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