



2018 IPLOCA Environmental Award

STREICHER's Drilling Fluid RECYCLE Plant – less Waste, less CO₂ with trenchless Pipeline laying!



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Development and issues:

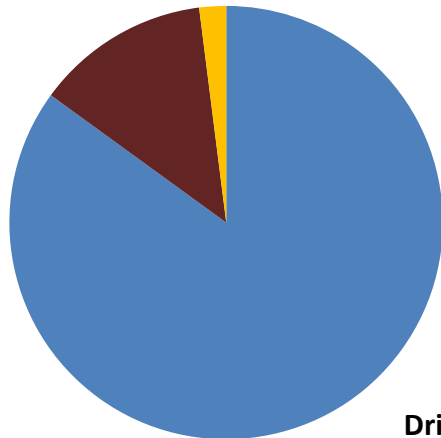
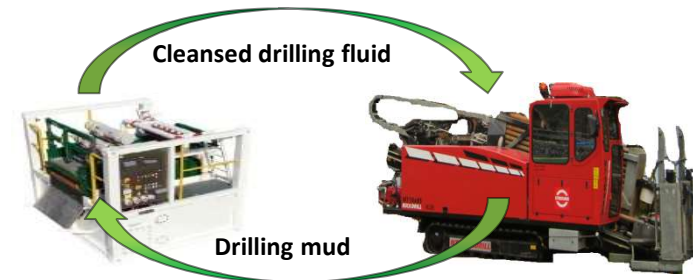
Horizontal drillings have a high environmental sustainability, as a trenchless laying of pipelines and cables is made possible. However, this technology also carries a **great problem**. The drilling mud produced at each drilling must be disposed of properly. In addition, liquids are **difficult to dispose of**. Our experts and management with their many years of experience and know-how have **responded** by building a **RECYCLE plant** that **reduces** the amount of **waste by 80 %** and thus significantly **decreases transportation volume**. Thus, the measure had **two problems** that arise in horizontal drilling eliminated. Landfills aren't available everywhere which means that there are **long transport routes**, which lead to a **high CO₂ pollution**.

Through the use of **STREICHER RECYCLE** plant we reduced:

- waste quantity
- CO₂ emissions

and saved:

- water
- fuel
- financial resources



- 85 % water
- 5 - 15 % solid components
- < 5 % Additives

Drilling mud consistence



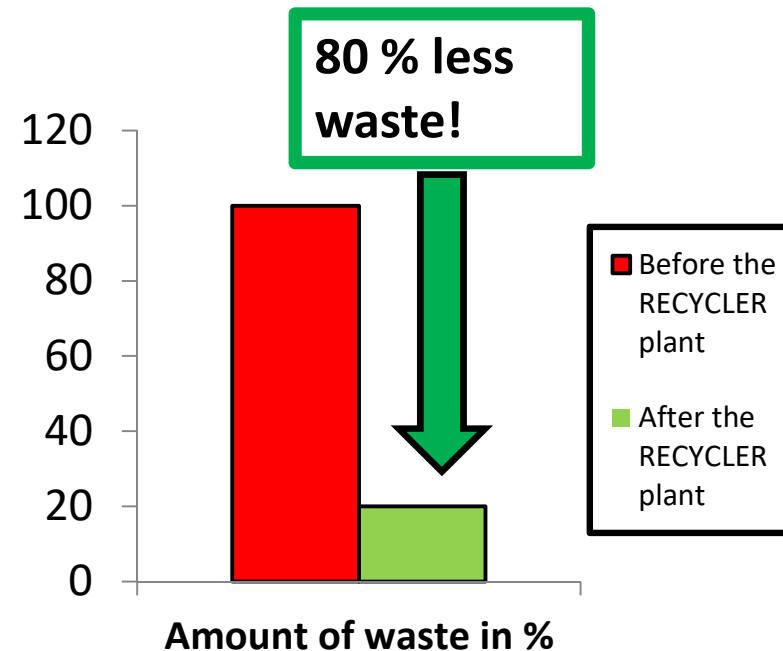
Untreated drilling fluid is pumped upwards.

Less Waste, less CO₂
with trenchless Pipeline Laying!

Technical description:

The **mobile plant** is designed for the treatment of used water-based drilling fluids, which are used for the application at **temporary construction sites**. The mobility of the plant allows for positioning it **directly or in the vicinity of the place where the waste is generated**. A permanent treatment of **10 m³ / h** is possible with appropriate preconditioning of the used drilling fluid.

- **Mobile plant**
- **Easy to transport**
- **Easy construction**



The STREICHER RECYCLE plant was able to reduce the waste by **80 %** and decrease the CO₂ emissions that occur during the transport!

Waste materials after treatment with the RECYCLE plant:



The clean water can be used again for the drilling fluid. The quality of the water is suitable for draining it into the canalization. This process requires a permission from the wastewater treatment plant operator.

The ejected solids from the centrifuge can be dumped into a landfill and **account for only 20 % of the initial amount!**

GOALS ACHIEVED:

- **80 % less waste!**
- **Energy-efficient** and **environmentally friendly.**
- **Less use is made of landfill areas**, as only **20 % of waste** is created!
- Drilling fluid is **cleaned** and **used several times!**
- **Polluted waste** can be separated into a solid and liquid matter and this leads to **reduced waste costs**, because the **amount of waste has decreased!**
- Transport **cost savings.**
- At least **50 % cheaper** than conventional way of disposal.
- **Decreased volume** for transportation.





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1. Does it add value?

Using the STREICHER RECYCLE plant **reduces the volume of waste to 20 %** and **saves the resources needed for transportation**. Drilling fluids can be cleansed and then disposed of in an environmental-friendly manner. In addition, the recycled drilling fluid can be reused and thus the environment can be protected.

2. Does the management show commitment?

The efficient use of resources, protection of people and the environment is of high priority at the STREICHER GROUP. The management provided the necessary resources and staff to develop and manufacture the RECYCLE plant. The **aim** is to **reduce the amount of waste** and to facilitate **the problem-free recycling** of the drilling fluid.

3. Does it constitute an identifiable step forward in environment for the Industry?

The **recycled drilling fluid can be used multiple times** and disposed of properly after its lifetime. The separation into the solid and liquid matters allows for the solid waste to be disposed of at a landfill and the water to be transferred to the local sewage treatment plant. The STREICHER RECYCLE plant promotes careful disposal and **decrease of high quantities of waste**.

4. How efficient is it?

Since the introduction of the STREICHER RECYCLE plant, **the amount of waste in horizontal drilling has been reduced to 20 %**. This significantly **reduced CO₂ emissions** and **transport volume**. After the separation process, the centrifuge water can be disposed of at the local wastewater treatment plant and the solid waste can be deposited at the landfill. After treatment with the STREICHER RECYCLE plant the drilling fluid can also be reused.

5. Does it have additional benefits?

Landfills are the last waste management option if waste can't be recycled. The **capacities of landfills are limited** and **soon exhausted**. With the new technology, the STREICHER GROUP **relieves the landfills, as less storage space is needed**. Furthermore, **drilling muds can be reduced by 80% of their initial volume** and **stored** in landfills **cost-effectively**.