

Specialist Press Release

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Safe in every way: Remediation of a former laundry site

Dresden, Germany – It can take perseverance to transform a contaminated site into an unpolluted space. This was also the case in the Laubegast district in Dresden: On a site where the soil and ground water had been polluted by the operation of a chemical laundry plant over the course of decades, remediation work funded by the EU began more than 20 years.

In October 2020, Bauer Umwelt, the environmental division of BAUER Resources GmbH, finally began its work on the former Schoof company premises with an area of 870 m². The order: Soil remediation with subsequent ground water treatment. After some preparatory activities, heavy equipment was brought in to carry out the soil remediation in January 2021: a 30 t excavator, two wheel loaders and a BAUER BG 46 drilling rig. Following extreme safety precautions, a total of approximately 3,500 m³ of soil must be excavated and 6,000 m³ of contaminated soil material will be replaced to a depth of 15 m using large-scale boreholes (diameter: 1,800 mm). Once excavation and drilling has been completed, the soil material can be treated and partially refilled. "The chosen method makes it possible to significantly reduce the gas release of hazardous volatile chlorinated hydrocarbons, including tetrachloroethylene and trichloroethylene. During drilling, the contaminated air is constantly extracted and residual contaminants are bound using fog guns. This is particularly important because there is a residential building directly adjacent to the property that is being remediated," emphasizes Uwe Schlenker, Head of Sales East Germany at the Bauer Umwelt Division of BAUER Resources GmbH.

Specialized knowledge is also required in other areas: Since the drilling work often involves moving massive amounts of soil on the site, the adjacent residential area was structurally secured as a precautionary measure. To accomplish this, the large diameter drilling rig was used to construct a pile wall with a diameter of 1,500 mm up to a depth of 21 m. In addition, an emission and noise barrier with a height of 3 m and a length of 65 m diminished the spread of exhaust gases and reduced the noise level. To avoid exceeding the limit values, experts at Bauer precisely measure the emissions and vibrations in real time using the latest measuring devices. If the values are exceeded, the SMS warning system immediately alerts site personnel so they can introduce countermeasures. "This allows us to ensure uncompromising quality assurance on the site. Through the precautionary measures we adopt, as well as continuous monitoring, we are able to prevent damages and protect the buildings," explains Lutz Hupfer, Site Manager at the Bauer Umwelt Division of BAUER Resources GmbH, adding: "Safety is always our absolute top priority."

Lutz Hupfer's team has everything under control and has accomplished a great deal over the past several months: constructing a concrete pile wall with 31 concrete piles, executing



90 replacement borings, replacing 1,730 m³ of soil, and removing and disposing of 4,800 t of contaminated materials in gas-tight containers.

Last but not least, the experts at Bauer ensure clean ground water that almost achieves drinking water quality. For this purpose, a ground water treatment plant was constructed to clean approximately 60 m³ of polluted ground water per hour until the end of the year using mechanical and biological filter layers, for a total of approximately 300,000 m³ by the end of operations. Once Bauer has completed its remediation work, this contaminated site will disappear from Dresden's urban landscape after many years.

Images: 2021-04_Bauer Umwelt remediates former laundry site ...



(1) In October 2020, Bauer Umwelt began its work on the former Schoof company premises with an area of 870 m^2 in the Laubegast district in Dresden.



(2) A total of approx. 3,500 m³ of soil must be excavated and 6,000 m³ of contaminated soil material will be replaced to a depth of 15 m using large-scale boreholes.





(3) Contaminated material is removed and disposed of in gas-tight containers.

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About BAUER Resources Group

The regionally organized BAUER Resources GmbH is aligned to projects around the world with its subsidiaries in Germany, Africa, the Middle East and South America and has extensive expertise in the areas of drilling services and water wells, environmental services, constructed wetlands, mining and remediation. With more than 30 years of experience, BAUER Resources GmbH's Bauer Umwelt business division is one of the leading specialists in site remediation, soil remediation and waste disposal, both in the domestic market and internationally. As an expert in pollution reduction, Bauer Umwelt offers a diverse range of services for all environmental issues. Other companies of the BAUER Resources Group are the GERMAN WATER and ENERGY GROUP (GWE) – manufacturers of pioneering products and developers of integrated applications for well-drilling and geothermal – as well the Site Group for Services and Well Drilling Ltd. in Jordan. More at bre.bauer.de

About Bauer

The BAUER Group is a leading provider of services, equipment and products dealing with ground and groundwater. With over 110 subsidiaries, Bauer can rely on a worldwide network on all continents. The Group's operations are divided into three forward-looking segments with high synergy potential: Construction, Equipment and Resources. Bauer profits enormously from the collaboration of its three business segments, enabling the Group to position itself as an innovative, highly specialized provider of products and services for demanding projects in specialist foundation engineering and related markets. Bauer therefore offers suitable solutions to the world's greatest challenges, such as urbanization, the growing infrastructure needs, the environment, as well as water, oil and gas. The BAUER Group was founded in 1790 and is based in Schrobenhausen, Bavaria. In 2020, it employed about 11,000 people in around 70 countries and achieved total Group revenues of EUR 1.5 billion. BAUER Aktiengesellschaft is listed in the Prime Standard of the German Stock Exchange. More information can be found at <u>www.bauer.de</u>. Follow us on <u>Facebook</u>, <u>LinkedIn</u> and <u>YouTube</u>!