MeDic- Metallurgy of Dictyonema Shale

Project leader
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Partners
Scandivanadium (Project owner), RISE

Project duration
2020-03-01 – 2020-11-30

SWEDISH MINING INNOVATION

Med stöd från
VINNOVA Sveriges innovationsmyndighet
Energimyndigheten
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Strategiska innovations-program

Goals of the project

1. To provide and demonstrate an effective extractive methodology capable of financially viable and environmentally acceptable recovery of vanadium from the Dictyonema Formation in southern Sweden.
2. Focus on the application of Pressure Oxygenation Leaching and determine the appropriate conditions of pressure, temperature, time, oxygen and pH to recover vanadium in a closed loop system.
3. The long-term objective of the project is to assist in the development of a local Swedish supply of the critical green energy metal vanadium used in power grid battery storage solutions. This could strengthen the Swedish mining sector and expand it into the southern parts of Sweden, where mining has not been an integral part of society for at least 50 years.

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Results so far

- 1st batch of Pressure Oxigenation Leaching samples tested under varying T and time conditions @ fixed pH and oxygen saturation
- Extensive analytical texts of post-experimental residues using surface, bulk and XRD analysis
- Mineralogical changes including partial break-down of illite and formation of goethite detected
- Extensive literature search for geological P-T conditions in vanadiferous black shale depostis globally

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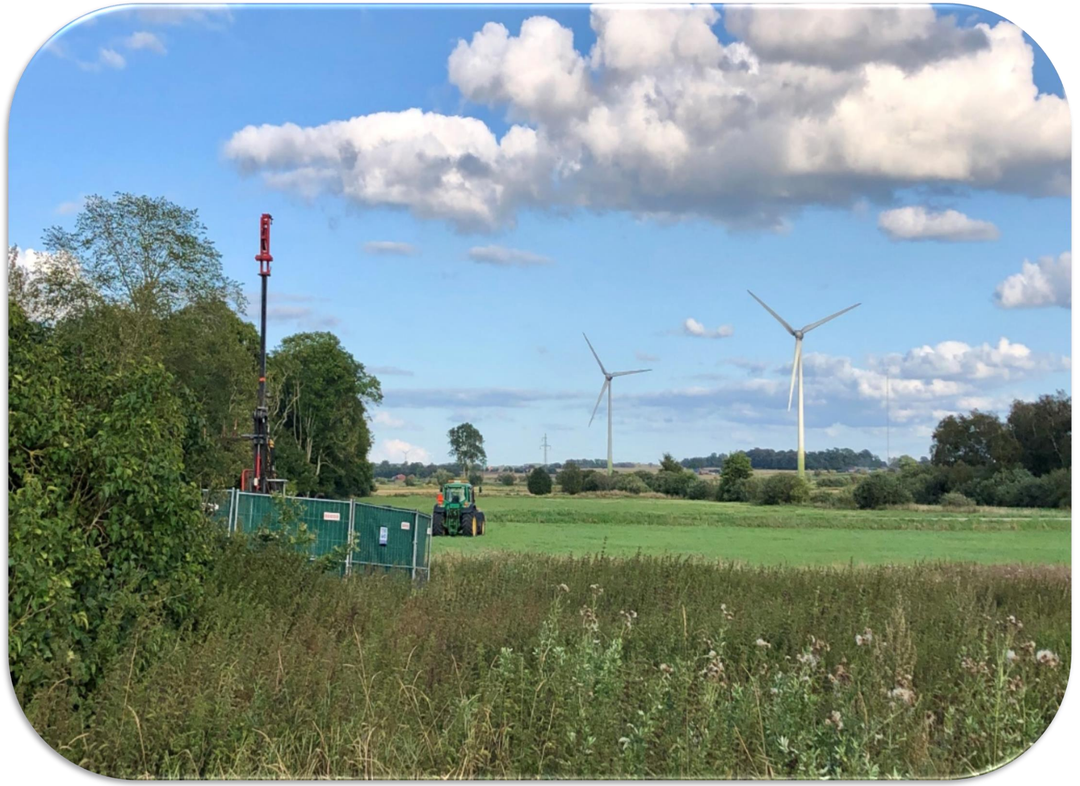
Upcoming activities and next step

- Project about 2 months delayed due to the corona situation
- 2nd batch of POX tests with modified experimental parameters are currently underway
- More detailed analysis of obtained data



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