



## Case

# STUDY

### TENAX LBO 370 & RHYNO®

Becconsall Drilling Site  
Working Platform

## The BACKGROUND

**Fox Owmbly were awarded the contract to construct the access road and working platform for the crane and drilling rig at Becconsall drilling site.**

In order to minimize the amount of granular material required on the site, Geosynthetics Limited were approached to produce a preliminary calculation demonstrating the effect on construction by introducing a layer of Tenax LBO 370 Geogrid for reinforcement.



**MARKET SECTOR:**  
Rail



**LOCATION:**  
Becconsall Drilling Site  
Becconsall  
Lancashire



**CONTRACTOR:**  
Fox (Owmbly) Limited



**CONSULTANT:**  
Pascoe Consulting Engineers

## Our Client's REQUIREMENTS

Reinforcement of a working platform for crane and drilling rig to complete exploration

### Technical Requirements:

- Reinforcement of a working platform using Type 3
- Crane Demag AC-100t
- Reduction in subbase required



## Our Value Engineered SOLUTION

**The considerations used for the calculation of the working platform, using the Tenax Reinforced soil raft method, were:**

- Foundation soil:
- Undrained shear strength  $C_u = 31 \text{ kPa}$
- Crane information: Demag AC-100t
- Bearing Pad:  $2\text{m} \times 4\text{m}$
- Design Load:  $663.70 \text{ kN}$
- Platform material: Subbase Type 3 with nominal maximum particle size of  $80\text{mm}$

We were able to establish from the soil investigation report and the loading data for the crane that an unreinforced solution would require  $650\text{mm}$  sub base Type 3 using the BRE 470 method. The effect of introducing a layer of LBO 370 Geogrid for reinforcement was calculated to reduce the sub base thickness to  $300\text{mm}$ .

A condition of the contract was that the design was covered by professional indemnity (PI). Geosynthetics Limited worked in partnership with Pascoe and Fox Owmbly to provide PI against the design. This was facilitated by ensuring the preliminary calculation adopted the same design approach and methodology as the designer would use.

**“We utilised the Tenax LBO370 as a result of the design assistance provided by Geosynthetics Limited. The solution allowed us to reduce the overall thickness of aggregate and as a result of the larger aperture size, we were able to enhance the platforms drainage capability by laying Type 3 material.”**

**LEE SUTTON**  
Project Manager  
Fox Owmbly Limited

