

The report encompasses four pieces of work undertaken on behalf of LLWR Ltd during 2010: 1) A description of the interpretation of geophysical profiles obtained from the Drigg Spit area were revised in a 3D environment in order to address inconsistencies along the profiles where they intersected. Profile interpretations were revised using GSI3D software, by examining both the original geophysical profile, the existing interpretation and geological information from boreholes along the profile. The resulting cross sections were compared to the existing lithofacies unit outline in order to define which geophysically interpreted units closely represented current lithofacies units. An incidental but important feature of the 3D approach is the production of 3D surfaces representing the bases of geophysical units. Those that also represented the bases of lithofacies units were utilised as a source of 3D data and incorporated into the May 2010 3D model iteration. 2) A description of the creation of the May 2010 3D model and the employment of a new approach where all surfaces are modelled across the whole study area instead of modelling 'onlap' and 'truncation'. 3) A comparison of the dataset used to create the May 2010 3D model and the interpretation presented in the 2010 Geology Report, with differences highlighted. The main difference was found to be the presence of newly defined additional 'upper' and 'lower' parts to lithofacies units C and B3. These differences are due to the more extensive interpretation presented in the 2010 Geology Report, information which was not used in the creation of the May 2010 3D model. 4) A revision of the 3D model, undertaken between August and September 2010 (the September 2010 3D model) utilised all available information from the 2010 Geology Report, and employed the creation of 'dummy' locations with 'dummy' elevations to fill gaps both horizontally and vertically, thus producing a model that is much closer to the geological interpretation than previously