



Leiðrétting við Geological report  
OS82042/VOD25-B

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**Greinargerð SV-BK-83/01**

In May 1982 the report: Hólmsberg, Geological report by Skúli Víkingsson and Bjarni Kristinsson, OS82042/VOD25B, was published by Orkustofnun. The report describes the geological investigation done because of the proposed oil reservoir and harbour at Hólmsberg and Helguvík SW-Iceland, according to a contract between Orkustofnun and Almenna Verkfræðistofan.

In the report mentioned above, a fault has been found in chapter 4.1, rock mass quality, but is corrected in this letter. The oil tank pits are expected to be 50 m in diameter and 10 m deep. When the tunnel support chart was made (table 2) the equivalent dimension (e.d.) was calculated incorrectly. E.d. consists of span diameter or height and excavation support ratio, E.S.R., which takes into account the purpose of excavation. In the calculation the pit diameter, 50 m, was used, instead of 10 m, the pit depth, which is the correct number.

Consequently the equivalent dimension becomes 4 instead of 20 before as the worse value, and 2 instead of 10 as the better value. Enclosed there is a new and corrected copy of the tunnel support chart. The rock mass quality is of course unchanged but the equivalent dimension has decreased, thus the rock falls mainly into the "no support required" category. This agrees well with what it says in the text about the experience we have had concerning the stability of jointed basalts in Iceland. However, we want to emphasize what is said in the report about the danger of fall out of single columns following blasts during construction time, or later because of frost action. It is also possible that loose scoria may cause problems during construction time but is unlikely to be a major problem.

In October 1982 the report "Hólmsberg, Boreholes B-9 and B-10, by Skúli Víkingsson and Snorri Zóphóníasson, OS82092/VOD40B" was published. In this report there is among other things described the rock mass quality from the boreholes B-9 and B-10 and the result is shown on the tunnel support chart published in the aforementioned geological report. These results change in the same way as above.

  
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$$\frac{10}{10} = 1$$

$$\frac{2.5}{10} = \frac{1}{4}$$

$$\frac{5}{10} = \frac{1}{2}$$

Figure 3. Tunnel support chart showing 38 categories of support which are determined by the tunneling quality (Q) and the equivalent dimension (De) of the excavation.

B-7 to B-8

