If we apply the same calculation procedure to Dykhuizen's "2nd day criterion", we obtain:

$$E_c = \frac{V_c}{48\,h} = \frac{30.8\ ft^3}{48\,h} = 0.64\ ft^3/h \qquad (6.2)$$

6.3 The government experts' rates are thousands of times greater than any erosion rates reported in the literature on cement erosion

The government experts' assumed erosion rates are 10,000 to 100,000 times greater than any reported in the extensive literature devoted to concrete erosion. The Halliburton Lab Report mentions that the cement contains some silica sand.[25] That makes it different from a plain cement, because it contains aggregates and thus behaves like concrete. A situation very similar to channel

investigations regarding the erosion of steel by oil-water-sand mixtures. For an oil-water-sand mixture with a sand content of about 20% by weight, the erosion rate increased by a factor of 9.[26] However, all results listed in *Table 6.1* account already for this mixed (slurry) flow. I have investigated erosion rates in concrete materials and exposed these materials to a high-speed slurry flow (like oil containing sand particles) at velocities of 180 ft/m.[27] The erosion rates I measured were about $254 \cdot 10^{-5}$ ft³/h. (That is .00254 cubic feet per hour.) More results from other researchers are provided in *Table 6.1*.

Even if the erosion rate is doubled due to the possibility that the well cement had a high porosity,[28] the complete erosion of the well cement would not occur in 2 days or anything close to that. The compressive strength numbers for the concrete materials cited in *Table 6.1* and those for the well