

Sponge-Sweep™ LCM Pills

An Easy Solution for Curing Continuing Mud Losses into Natural Shale Fractures

Customer Challenge

Drilling in the Wolfcamp shale formations and in the 6" production hole interval approximately 2000' away from TD of close to 20,000', an operator started to suffer continuing losses of expensive OBM of ~12.5 ppg at 90 BPH very likely into natural fractures. Though numerous pills of conventional products such as graphite and calcium carbonate were pumped, none was effective. With the continuous mud losses, the additional cost of drilling would be around \$250,000 a day and there were still several days to go.

Sponge-Sweep LCM Pill Solution

Sponge-Sweep LCM is a first of its kind fast sealing granular lost circulation material pre-blended with fine-sized reticulated sponge. It is specially engineered to quickly seal a variety of fractures up to ~3000 microns. Its sealing performance is tested and assured batch by batch at the factory. The fine flexible reticulated sponge is incorporated for adapting the sealing to complex downhole fractures. With its effective sealing capability, challenging mud losses may be stopped easily by simply pumping it as a sweep pill across the loss zone while drilling. By the sweeping sealing pill, the benefit also is that it is not essential anymore to know the exact location of the loss zone in order for curing the mud loss.

Based on its unique sealing capabilities, the operator eventually elected Sponge-Sweep to cure the resilient mud losses. One small 40 bbl pill of Sponge-Sweep at 50 ppb was mixed in a slug pit by simply adding the product into mud through a hopper. Based on the high loss rate, 0.3 ppb of medium size reticulated foam was also added to the pill to improve further its sealing capacity for wider fractures.

Then the pill was pumped down incrementally at 10-15 bbl each time across the loss zone. It has been noticed that each time when the pill was pumped, the loss rate was reduced by approximately 50%. When only half of the second small pill was pumped down, the mud loss was reduced to zero.

Contact

For additional information about our premium products and engineering, contact Max Wang by phone at 281-450-4944 or by email at max.wang@sharp-rock.com or go to www.sharp-rock.us.

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