

Extinguish OIL Well's Fires

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This research paper concerns the oil and gas well's fires and the modern extinguishing process. We will introduce the fire thermal, chemical, and physical mechanisms on which our quenching mathematical model will be constructed based on the fire thermal parameters. The new technique involve the whole thermal sphere not only the fire visible core. Then the solution of the program was enhanced with the help of the international MATLAB program and was based on the available international fire data. Later the obtained solution shows very interesting results using the economic quenching matter and the process enhancement in optimum time. Practically we test the technique by building our own system and test it on three type of hydrocarbon fuels these are: 1- Kerosene, 2- Diesel, and 3- Benzene, the obtained results by adding clay to the sea water were very encouraging.

Key Words: 1- Oil Specification, 2- Oil well, 3- Fire, 4- Model, 5- MATLAB program.