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**Analysis of the incident of the metallic corrosion in petroleum oils**

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Petroleum oil is an essential earth resource for the day today applications of human beings also tend to be caused a few adverse results on some other materials such as the metallic corrosion which is known as the formation of metal oxides, sulfides, hydroxides or another certain compound on the corresponding metal surface itself due to the interaction between the metal and the surrounding medium. Crude oil is a mixture of hydrocarbons also composed with some corrosive compounds such as sulfur, mercaptans, organic acids and salts since the occurrence. In the current research there were expected to investigate the effect of both Murban and Das Blend crude oils on the corrosion rates of seven different types of ferrous metal which are frequently applicable in the crude oil refining industry. The contents of sulfur, mercaptans, organic acids and salts were determined by in order of XRF analyzer, titration methods and salt analyzer while testing the chemical compositions of metals by XRF detector. A batch of similar sized metal coupons were immersed separately in crude oils and their corrosion rates were determined by the weight loss method in order to after 15, 30 and 45 days from the immersion while observing the corroded metal surface through the 400X lens of an optical microscope. Basically there were obtained the some impact from salts that higher than the impact of organic acids on the metallic corrosion, some improper contributions of the sulfur compounds on the metallic corrosion, formations of the FeS on the metal surfaces due to the effect of such compounds and the formations of Fe<sub>2</sub>O<sub>3</sub> rarely due to the water contents of crude oils and it's possible to recommend to investigate more corrosive compounds that presence in various types of crude oils and their impacts on the metallic corrosion for further studies.