

CHAPTER V

CONCLUSIONS AND RECOMMENDATION

5.1 Conclusions

From the bottle test for screening the demulsifiers, Teric 61 was the best demulsifier which represent for nonionic series. Then optimum condition of the best demulsifier were investigated and the results show that

1. Raising the temperature leads to an increase in the demulsification efficiency
2. The demulsification efficiency for nonionic demulsifier decrease as the salinity concentration increase whiles the demulsification efficiency for ionic demulsifier decrease.
3. The maximum demulsifier efficiency is obtained when pH-value of the water phase in the emulsion is 7.
4. Xylene and Toluene were found to be the best solvent for the prepared demulsifer. The solution from this solvent exhibited the highest demulsifiers efficiency.

5.2 Recommendation

Further investigation need to be conduct to disclose the appropriate demulsifier for each well. Since now there were only Teric series that enhanced the phase separation and the water remaining in the crude oil was less than 0.5%. It worked for 4 wells but there were 2 wells left that need to do the water removal also. After finding all appropriate surfactants, mixed surfactant are needed to study also in order to give the synergistic effect, phase behavior need to be investigated including interfacial measurement to clarify the difference between nonionic demulsifiers that helping phase separation.