

# *CHAPTER V*

## *CONCLUSION*

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The present work resulted in a number of promising findings, which can contribute for the establishment of a biotreatment technology to be applied to resolve the problem posed by the accumulation of oily sludge in refineries.

Findings of the present study are as follows:

- High percentage of oil content and minimum quantity of metal compounds in the sludge.
- Hydrocarbon degrading microorganisms were identified from oil polluted soil sample.

Bacterial species are

- *Bacillus macerans*
- *Enterobacter cloacae*
- *Proteus mirabilis*
- *Pseudomonas aeruginosa*
- *Staphylococcus aureus*

Fungal Species are

- ✓ *Aspergillus nidulans*
- ✓ *Chrysosporium pannorum*
- ✓ *Curvularia lunata*
- ✓ *Paecilomyces variotii*
- ✓ *Rhizopus stolonifer*

## *Conclusion*

- Addition of nutrients enhanced the degradation process.
- The effectiveness of selected microorganisms was compared with commercially available microorganisms. Selected microorganisms performed better than the commercially available microorganisms in degrading the oil in sludge.
- The metals present in the oily sludge were well with in the standard.