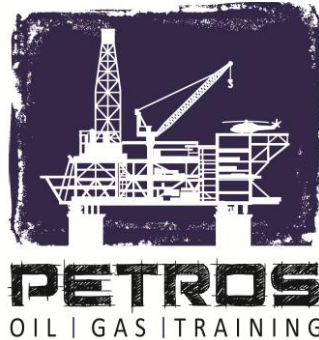


Certificate No : PTR-OFS-LO-WSC-01

Date : December 20th , 2025



CERTIFICATE OF ACCOMPLISHMENT

This certificate is granted to

MUHAMMAD GANDHI FAHREZI

ID NUMBER : PTR-WSC-01

For successfully completing
& finished the Final Project of our Training

SACS TRAINING – LOAD OUT ANALYSIS

Held at **Wasco Engineering Indonesia** – Batam, Indonesia,
6 & 7 December 2025, covering the subjects as listed on the back page



Certificate Validation

A handwritten signature in black ink, appearing to read "Heru Prasadja".

Heru Prasadja, ST
Director

SACS TRAINING - LOADOUT ANALYSIS

BASIC THEORY

METHOD OF ANALYSIS

A normal set of conditions:

- All support active.
- A vertical displacement of ± 30 mm is imposed on each of the 4 supports alternatively.

An extreme set of conditions:

- Each support is successively released:
- A maximum vertical displacement of ± 60 mm is imposed on each of support alternatively

STRUCTURAL ANALYSIS

Basic Load Case

- Elementary Load Cases
- Gravity Load
- Variation Of CoG Location
- Displacement Of Support
- Wind Load
- Friction Load

Load Combination

- Full skidway support + Shifting + Wind
- Loss support + Shifting
- Each Support preset 30 mm upward + Shifting+Wind
- Each Support preset 30 mm downward + Shifting + Wind
- Each Support preset 60 mm upward + Shifting+Wind
- Each Support preset 60 mm downward + Shifting + Wind

LOADOUT ANALYSIS COMPUTER MODELING

- Model and Input Data
- Create Loadout Input File
- Running The Analysis

ANALYSIS OF RESULTS

- Total Deck Weight, Centre Of Gravity, Support Reactions , Deflection
- API/AISC Member Stress Ratios

LOADOUT ANALYSIS USING SPMT

REPORT PREPARATION

FINAL PROJECT : LOADOUT ANALYSIS OF 103 TONS DECK PLATFORM