



ENGINEERING APPLICATIONS – PROJECT DESCRIPTION

New Hope Coal – Design & Fabrication of Four Gas Storage Vessels

Client: New Hope Coal Coal-to-Liquids Project, Jeebropilly QLD

Project: Detailed Design and Fabrication of Four Gas Storage Vessels

Duration: December 2012 to February 2013

Man Hours: Design – 65
Fabrication – 2160

Description of ENAP's Scope:

ENAP's scope was the detailed design and fabrication of four vertical Gas Storage Vessels with capacity of 42.7m³ at a design pressure of 1200kPa(g) and design temperature of 100 deg C. The vessel size was 2.47m diameter and shell height of 11.0m, with wall thickness of 16mm AS1548 Gr 460R Boiler Plate. All vessels seams were welded with ENAP's Submerged Arc Welder for efficient production.

ENAP's scope included:

- Detailed design of pressure vessel in accordance with AS1210 Class 2B, including third-party design verification and registration with Workplace Health & Safety Queensland
- Preparation of general arrangement and shop fabrication drawings
- Fabrication of four vessels in accordance with AS1210 and AS3992
- Non-destructive testing including 100% visual inspection, mechanical testing of Production Test Plate and hydrotesting
- External surface protection with blasting to AS1627.4 Class 2½ and painting with two coat epoxy system
- Delivery to site on specially designed and fabricated transport cradle
- Preparation and submission of Manufacturer Data Report containing Inspection and Test Plans, Weld Procedure Specifications and Qualifications, Welder Qualifications, Material and Consumable Certificates, NDT Reports, Production Test Plate NDT Reports, Hydrotest Report and Paint QA Report

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