Inete Case Study:

CSG Electrical Review & Earth / Lightning Study

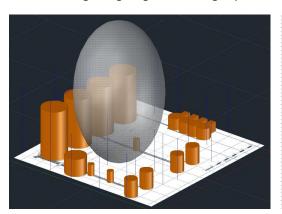


The Queensland Gas Corporation (QGC) operates numerous gas wells and gas plants throughout Queensland, including wells at Berwyndale South and the QGC Matilda John CSG Plant. Matilda John is one of QGC's Coal Seam Gas (CSG) projects which consist of four CSG wellheads. Each wellhead is powered by a 93.2 kW electric submersible pump (ESP) motor driven by a variable speed drive.

For the Berwyndale South wellheads Inete was engaged to provide electrical RPEQ review and sign off for three wellheads: BWS -WH-021, BWS-WH-032, and BWS-WH-058. Inete worked closely with the Mondora Group to produce detailed electrical reviews and reports containing key recommendations for each well head.

For the Matilda John CSG Plant Inete was engaged to provide a generic earthing design for QGC Matilda John CSG Plant typical configuration as provided and to provide a Lightning Protection System for the plant which is compliant with AS/NZS 1768. Inete worked closely with Performance Electrics to

deliver an Earthing and Lightning Protection deign report for the coal seam gas plant.





Project Overview

Project

Coal Seam Gas Electrical RPEQ review and earth and lightning protection study.

284kVA Gas

Circuit Breaker

Fuses

200kVA VVVF

210kVA Transforme

Junction

Wellhead

93.2kW ESP

400V

1283V

Location

At various sites near Chinchilla in South West Oueensland.

Infrastructure

- Berwyndale South Wellheads;
- Matilda John CSG Plant which consists of four CSG wellheads.

Project Scope

Major works included:

- RPEQ Electrical Review and sign off for Berwyndale South Wellheads;
- Design the earthing system for the QGC Matilda John CSG plant to ensure that the proposed plant complies with the relevant earthing standards;
- Design a general Lightning Protection System (LPS) for the described CSG plant infrastructure to ensure that the proposed plant complies with AS1768:2007 [2].

Inete Pty Ltd

trading as Integral Electric Technology

Email

admin@inete.com.au

Web

www.inete.com.au

