



SOLUTION NOTE

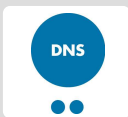
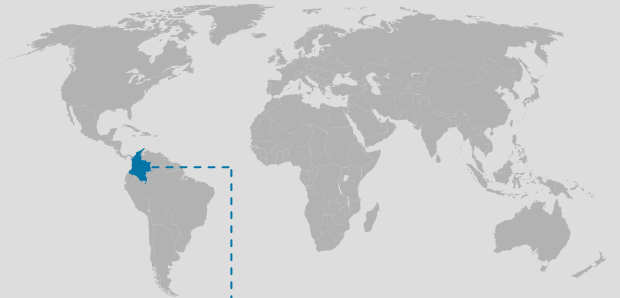
PRIVATE OIL & GAS FACILITY Pacific Rubiales Energy (Colombia)

SN-RUBIALES-EN-0514

PRIVATE OIL & GAS FACILITY ELECTRIC POWER SUPPLY SOLUTION

Pacific Rubiales is engaged in the exploration, development and production of heavy crude oil and natural gas in Colombia and Peru. Its experience in this sector has become the company as the largest independent oil and gas exploration and production in Colombia. The design of the new private network of electricity distribution in the region of Llanos Basin, will provide to the facility a high level of protection and automation, that allows a 24 hours/day monitoring and maneuverability in case of necessity.

DUE TO » 2011
CLIENT » Pacific Rubiales Energy
LOCATION » Región de Llanos Basin, Colombia
SOLUTION » Complete Private Network Distribution
SEGMENT » End Users (E3U) – Oil & Gas Industry



ORMAZABAL DISTRIBUTION NETWORK SOLUTIONS (DNS):
 TURN-KEY CONTAINERISED MOBILE SUBSTATION, INSTALLATION AND COMMISSIONING, COMMS. CABLE CONFIG.,...

Mobile Substations: 4 Metallic Containers



ORMAZABAL CGMCOSMOS:
 FIXED MOUNTED, SINGLE BUSBAR, GAS INSULATED SWITCHGEAR UP TO 24 KV

Switchgear Types: Feeder (L) Busbar Switch (S) Circuit-Breaker (V)	Electric Data: 24 kV – 630 A – 20 kA	Scope of Supply: 4 Configurations of 17 Cubicles: 68 Configuration by container: 14V+1S+2L
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ORMAZABAL ekorUCT:
 REMOTE CONTROL COMPACT UNIT

Characteristics:
 Compact Remote Control Unit



ORMAZABAL ekorRPGci:
 INTEGRATED CONTROL PROTECTION UNIT

Characteristics:
 Protection and metering unit with integrated control for circuit-breaker protection cubicles



ORMAZABAL ekorRPS:
 MULTIFUNCTIONAL PROTECTION UNIT

Characteristics:
 Multifunctional protection, control and measurement relay

THE CHALLENGE AND THE SOLUTION

With a total of 68 MV functional units with identical configurations divided in 4 mobile containers, Pacific Rubiales transmitted to Ormazabal the need of a system with the highest level of monitoring and control.

The configuration chosen consists of an incoming and outgoing through two feeders units (L) with load break switch, one busbar switch unit (S) and 14 circuit breaker outgoings with the latest breaking and making vacuum technology.

A complex system of protection, control and automation allows the remote control operation, as well as a monitoring of all measurement data and switchgear status of each of the functions that consists the new design of the private distribution network.

ORMAZABAL KEY BENEFITS

- Tailor Made Solution: Contracting a Unique Project Manager
- Easy wiring of Remote Control Units thanks to easy interconnection system
- Protection, Control, Automation & Telemangement of the Private Distribution Network without limitation on the number of functional units automated on the installation