

Project Summary

BE Awards Winner

Special Recognition Award Winner -
Attaining Return on Innovation

Organization:

KBR/EOS Oil & Gas Services Joint
Venture

Solution:

Information Management

Location:

North Rankin and Perseus Gas
Fields, Australia

Project Objective:

The North Rankin Redevelopment
Project, will recover remaining low-
pressure gas from the North Rankin
and Perseus gas fields and extend
the field life to around 2040.

Products used:

ProjectWise® Lifecycle Server

Lifecycle Information Management Accelerates Platform Delivery

Innovative Dashboard Delivers Real-Time Data for Massive Off-Shore Oil Rig Design

In March 2008 the Woodside-operated North West Shelf Venture approved funding of the AU\$5 billion North Rankin Redevelopment Project, which will recover remaining low-pressure gas from the North Rankin and Perseus gas fields and extend the field life to the year 2040. The project involves the installation of a new second platform – North Rankin B – with gas compression facilities, low pressure separators, utilities, and accommodation.

The resulting benefits are considerable, with real-time information from ProjectWise Lifecycle Server and other project tools being made available on the project dashboard/portal, a further element of KBR's toolset.

North Rankin B will be connected by a 100-meter bridge to the existing North Rankin A platform and on completion both platforms will be operated as a single integrated facility known as the North Rankin hub. The North Rankin Redevelopment Project also includes the necessary connections to North Rankin A and some refurbishment of the North Rankin A platform. North Rankin B is scheduled for start-up in 2013 and will support the North West Shelf Venture's onshore gas requirements to supply future customer commitments.

The KBR/EOS Oil & Gas Services joint venture (50/50 KBR and WorleyParsons) has been contracted by Woodside for the front-end engineering and design (FEED), detailed design and procurement management for the NRB integrated deck float-over topsides and substructure. At its peak, the EOS team had around 530 people spread across four global work centers: Perth, London, Beijing, and Jakarta.

Woodside's desire as the operator is to have a single integrated information set throughout

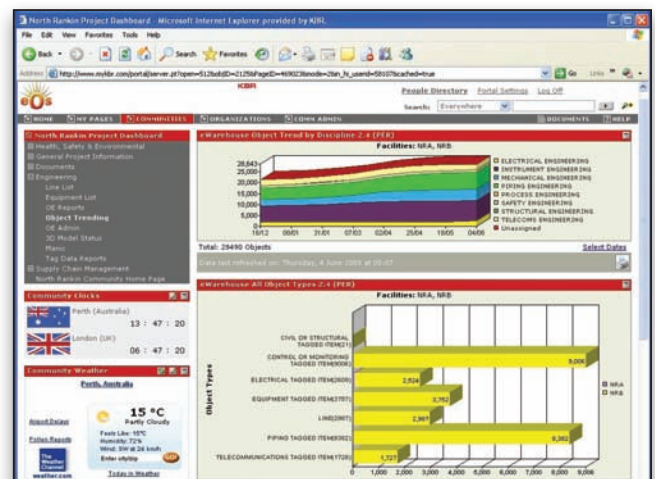
the asset's lifecycle including design, completions, and into operations. To deliver this value, the EOS project team took the decision to implement an information management strategy developed by KBR using its integrated suite of engineering tools and systems for project execution.

Initially implemented during FEED, the role of ProjectWise® Lifecycle Server has been central to this information management strategy throughout the detailed design phase, performing the role of central asset register for the whole NRB facility. The information management work practices, along with high levels of integration and data flows with the other tools used on the project allow for a high-quality integrated data set to be managed and produced as part of the overall project delivery. The data flows are also extended to the supply chain using a data-collection tool, allowing as supplied attribute web-based data to be collected.

The resulting benefits are considerable, with real-time information from ProjectWise Lifecycle Server and other project tools being made available on the project dashboard/portal, a further element of KBR's toolset. The project dashboard has been receiving over 300 individual visitors per month, accessing it over 11,000 times. This visibility is allowing enhanced decision making based on real-time, up-to-date information

Fast Facts

- Initially implemented during FEED, the role of ProjectWise Lifecycle Server has been central to the information management strategy throughout the detailed design phase, performing the role of central asset register for the whole NRB facility.
- The resulting benefits are considerable, with real-time information allowing enhanced decision making based on real-time, up-to-date information and transparency between client and contractor as to the current project status and improved data quality.



Discipline Tag Dashboard

ProjectWise Lifecycle Server will remain the central repository for tag data throughout the completions management phase of the project until transition to the operations data management systems.

and transparency between client and contractor as to the current project status and improved data quality.

The information management strategy, using ProjectWise Lifecycle Server, ensures high data integrity, with high-quality deliverables developed during the project as opposed to a clean-up exercise afterward. This data is also being used early to populate the completions management system (WinPCS) and the operations data management systems. The early availability/visibility of data, particularly for the completions phase of the project, is allowing completions planning and scheduling to be carried out in parallel to the design and supplier data as these evolve. ProjectWise Lifecycle Server will remain the central repository for tag data throughout the completions management phase of the project until transition to the operations data management systems.

General Data		Tag Data	
Name	Value	Name	Value
Tag Number	B4EWS07A	SYSTEM	B4
Object Type	EQUIPMENT TAGGED ITEM	Equipment Type Code	EW
Process Description	B4EWS07A SEAWATER/TEMPERED WATER EXCHANGER	Area ID	S
Process Code	HEAT EXCHANGER TAGGED ITEM	Equipment Tag Call Number	F
Physical Class	PLATE AND FRAME HEAT EXCHANGER	Equipment Tag Suffix	A
Physical Identifier	1000480	Equipment Tag Suffix	
Parent Tag	PARENT		
Link To			

Submittal References		Functional Attributes	
Document Type	Document Number	Attribute	Value
LAYOUT DRAWING	B4EWS07A001.0002	Award Line Item Flag	TRUE
HAZARDOUS AREA CLASSIFICATION DRAWING	B4EWS07A001.0008	Area	TS HW
SUPPLIER DATA SHEET	B4EWS07A001.0005	Certification Authority	N/A
DATA SHEET	B4EWS07A001.0006	Certification Number	N/A
P AND I DIAGRAM	B4EWS07A001.0003	Date of Manufacture	2008
LAYOUT DRAWING	B4EWS07A001.0004	Description	SEAWATER/TEMPERED WATER EXCHANGER
LAYOUT DRAWING	B4EWS07A001.0007	Design Code	ASME VIII Div 1 + U
LAYOUT DRAWING	B4EWS07A001.0009	Design Pressure - Maximum	1400
LAYOUT DRAWING	B4EWS07A001.0010	Design Temperature	25
LAYOUT DRAWING	B4EWS07A001.0011	Material	
LAYOUT DRAWING	B4EWS07A001.0012	Report Date From Source App	8-February-2008
LAYOUT DRAWING	B4EWS07A001.0013	Service Flag	FALSE
LAYOUT DRAWING	B4EWS07A001.0014	Hydrostatic Pressure	2400
LAYOUT DRAWING	B4EWS07A001.0015	Identified In Source App	1000480
HAZARDOUS AREA CLASSIFICATION DRAWING	B4EWS07A001.0002	Inspection Code	By WEL Operations
LAYOUT DRAWING	B4EWS07A001.0003	Inspection Interval	By WEL Operations
PROCESS DATA SHEET	B4EWS07A001.0006	Manufacturer	APA Level
LAYOUT DRAWING	B4EWS07A001.0004	Material of Construction	TS Flange / CS End Plates
LAYOUT DRAWING	B4EWS07A001.0007	Model Number	TSD-8FD
LAYOUT DRAWING	B4EWS07A001.0008	Sheet Type	Major Equipment Tag
LAYOUT DRAWING	B4EWS07A001.0009	Remarks 1	Design Verified by
LAYOUT DRAWING	B4EWS07A001.0010	Serial Number	1008-13976

Equipment Detail Page

Find out about Bentley at: www.bentley.com

Contact Bentley
1-800-BENTLEY (1-800-236-8539)
Outside the US +1 610-458-5000

Global Office Listings
www.bentley.com/contact