



# Key Notes

Product and Company News from Diamond Key International

## Merit Award

It is with great pleasure and pride that we share the news of our most recent Merit Award presented to the DKI team by Shell Distribution for the successful delivery of the Sapangar Bay Installation in Malaysia and Pandan Installation in Singapore.

This award is a fine achievement and proves that DKI professionalism, dedication and hard work to meet our customer's needs has not gone unrecognised. The award, to a large extent, placed a great deal of focus on health, safety and environmental issues together with quality which are the fundamental values of our project implementation and service delivery processes.

This recognition from Shell is a clear demonstration of our dedicated team efforts and hard work to satisfy our customer operation requirements.

CT Chan (DKI Malaysia), receives a Merit Award on behalf of DKI.



## Teaming up in Dubai

DKI have undertaken a concept and detailed design project in conjunction with Shell Bitumen in order to address the complexities and key hazards of bitumen loading and to develop a standard modular design which can be easily supplied anywhere. Some of the advantages in having a unique design for all bitumen loading modules include; cost optimisation, enhanced safety, troubleshooting, availability of spare parts and technical support services.

Bitumen loading modules are typically used to load bitumen products at a storage depot facility prior to delivery to the end customer. Most bitumen grades including penetration grade bitumen, blown hard grades and polymer modified bitumen, are typically loaded hot, into single compartment insulated bitumen tankers. Typical loading temperature is 140°C but ranges from 130°C to 180°C depending on the grade, application and market requirements. Bitumen emulsions are loaded at ambient temperature however, special consideration must also apply to manage foaming and potential emulsion breakdown, therefore health and safety were paramount in the design which incorporated multiple safeguards in order to protect drivers during the loading process ie;

- integrated overfill protection system
- integrated emergency stop systems
- safety cage and safety shield
- dual exits
- shower and eye wash
- vapour plate with fume extraction

- multiple safety interlocks
- drawbridge for filling hatch access
- all pipework and wiring constructed, inspected and tested to relevant hazardous area standards.

Recently Shell Global Bitumen management visited DKI Australia for a project review meeting following the successful implementation of the first bitumen module installed in Dubai.

The post-implementation review along with DKI's customer feedback and rating system, revealed an achievement of a perfect score, the highest rating for overall system delivery including design, construction, Factory Acceptance Testing and commissioning.

Michael Ryan, Stephen Snow and Roberto Bran representing Shell Global Bitumen, expressed their congratulations and satisfaction with the smooth site implementation of the Dubai project which took twelve days from landing the module to loading product and reinforcing DKI's belief in modular solutions.

Designed in Melbourne, built in China and commissioned by teams from China and Malaysia, this truly demonstrates "DKI Teamwork" across the regions.

Congratulations to everyone involved and we look forward to another success story at the next installation in India.



# Product Update

With the need to offer a lower cost meter that is still a highly accurate solution to the non custody transfer market, we are pleased to announce the release of the FMC Technologies Ultra4 Liquid Ultrasonic meter. Ultrasonic flow meters are being applied in more and more applications as the single instrument because of its excellent performance characteristics and unique stability over large flow, fluid, temperature and pressure ranges. The predominant applications will be allocation, inventory control and leak detection.

The four path ultrasonic meter with Signal Processing Unit (SPU) for measurement of refined petroleum products and crude oils, is a new entry in the FMC family of metering products, which also includes the Ultra6 for custody transfer liquid measurement and the MPU 1200, 600 and 200 gas ultrasonic flow meters.



Ultra4 functionality is based on the well established acoustic transit time principle which documents how ultrasonic pulses are modified as they are transmitted through flowing mediums. An ultrasonic pulse propagating with the flow will experience an increase in velocity while an ultrasonic pulse propagating against the flow will experience a decrease in velocity.

The Ultra4 measures the transit time of the ultrasonic signal that is transmitted. The start of the transmission and arrival of the correct signal is detected by its software. The Ultra4 transducers are non-intrusive and flush mounted ensuring minimum risk of clogging by residues in the flow. The transducer is fully encapsulated and the housing is manufactured from titanium.

## BENEFITS

**Low Pressure Drop** - Drop is the same as an equal length of straight pipe.

**Low Maintenance** - No moving parts that need replacement due to wear, especially beneficial in severe operating environments.

**Ideal for Problematic Applications** - Non-intrusive parts help avoid product build up on equipment.

**Operational Flexibility** - Bi-directional flow reduces time required to redirect product flow.

# Pertamina x Two

Pertamina was established in 1957 as the first Indonesian state owned oil and gas company. Their scope of business incorporates the upstream and downstream sectors including processing, marketing, trading and shipping. Commodities produced range from fuel and non fuel products, LPG, LNG, petrochemicals to lube base oil.

Earlier this year, DKI was awarded the contract to supply, install and commission 8 bottom loading SlimLine modules, 2 dual pump additive tank and control modules, an Omega 3000 Terminal Automation System (TAS) along with SCADA and BayView systems, for the existing Pertamina Oil

Terminal in Surabaya, the most important commercial centre and capital of the East Java Province in Indonesia.

Following on from the award of the Surabaya project, DKI secured a second order with similar scope including TAS and 12 bottom loading modules for the Plumpang Oil Terminal, Pertamina's largest depot with 27 storage tanks and a capacity of 50,000 kilolitres. Located 8km north of Jakarta, Plumpang supplies some 15,000 kilolitres of fuel to the greater Jakarta areas everyday.

Modules for both sites will be fabricated at DKI's China plant with the Surabaya skids expected to be

ready for Factory Acceptance Testing in August. Commissioning for both Pertamina sites is due to take place at the end of the year.

DKI hosted several visits from Pertamina and affiliates of PT Pertamina in Indonesia, on a tour of several terminals boasting DKI supplied equipment in Malaysia and Thailand. Not only was this constructive in further discussion on project related issues, but also a valuable opportunity to demonstrate DKI products, services and capabilities.

Left to right: Rachmad Muhamadiyah (Prolindo Aditya Prima), Pak Gema (Plumpang Terminal Manager), Pak Awaludin (Surabaya Terminal Manager), Chang Nen San (DKI Project Mngnr).

## Quality-everyones responsibility

SAI Global conducted a tri-annual ISO9001:2008 Surveillance Audit at DKI Australia in July. In managing and maintaining accreditation, DKI is regularly audited against the requirements and guidance provided in the international standards appropriate to the organisation.

This audit particularly focussed on continuing compliance of the business management system, its effectiveness in achieving continual improvement and system objectives and to review the management of changes. This revealed that the quality management system continues to be appropriately managed and also identified a number of improvements in the progress of being implemented, such as non conformance reporting and corrective action order systems which are being brought into line with the latest ISO requirements. A large number of staff also attended a three day training course provided by SAI Global which covered Internal Quality Assurance Auditing.

There were no non-conformances raised and findings from the audit provided the confidence and recommendation to continue the ISO9001:2008 certification.



# Patricia Baleen Gas Plant

Santos has signed an agreement with Nexus Energy to process gas and condensate from the Longtom Field in Bass Strait. This will allow Santos to continue to utilise the existing Patricia Baleen Gas Plant which has been in operation since 2003, and allow Nexus Energy to develop their Longtom reserves without the need to build a new gas plant. The gas will be discharged into the Eastern Gas Pipeline and will represent about ten per cent of Victoria's gas demand over the next ten years.

The Longtom gas contains condensate, a light crude oil which condenses from natural gas when encountering normal atmospheric conditions. It is sold mainly to oil refineries in Australia and overseas markets, and is used as a feedstock for chemical plants and in the manufacture of automotive and aviation fuels.

The stabilisation, storage and periodic loading of condensate into trucks is a new operation for the plant, although they already produce a small amount which is removed on a monthly basis, it is estimated that this will increase to four condensate trucks a day.

Diamond Key International is installing a road tanker loading system for load-out of the condensate by way of a two arm right angle bottom loading module. The condensate will then be transported to a receiving terminal for on-sale.

An Omega-Lite Terminal Automation System will also be installed to control and monitor the product. A simple 'no frills' low cost solution with basic functionality, OmegaLite connects to either AccuLoadIII.net or MicroLoad.net preset controllers and is provided in a basic package with optional 'add on' features for certain extra functionality. OmegaLite provides a simple user interface, management of security and access to product, management of loads, loaded documentation, simple reports and full access to data for user own reporting.

Drivers access product on a pre-scheduled or pre-ordered basis by entering their identification and PIN via the multilingual interface.

Companies can enter order numbers and/or references via a 'special field' option providing operational flexibility. Product configuration is stored in the preset controllers allowing read access only and data is stored within the transaction database for twelve months.

OmegaLite software is installed on a standard personal computer and provides single user access with common functionality, conveniently located on a single 'set-up' screen - a perfect solution for smaller depots such as the Patricia Baleen Plant.

DKI will be commissioning the equipment in August.

## Press Release

Diamond Key International (DKI) was established as a joint venture between Shell Australia Limited and Diamond Key Group (DKG) in 1998.

Since its inception, DKI has enjoyed a good relationship with Shell both as joint venture partner and supplier to Shell.

11 years on, DKI operations are no longer considered core to Shell's business and therefore Shell has divested its interest.

"The Shell Group across a range of global business units remains a key customer of DKI and confidently expects DKI will remain a strong supplier in the industry", said Mr. Michael Brown, Shell representative.

"DKG understands and respects Shell's decision to divest from DKI as a shareholder, however the trust and strategic supplier relationship with Shell will grow even stronger globally as Shell continues to be one of DKI's core customers", said Ms Lily Chen, CEO of DKG.

In order to provide a broader range of products and services to our customers and increase identified market share, DKI has commenced its execution of strategic alliance partnerships. Recently this included formalising a partnership with Chongqing Endurance Industrial Group to expand the sales and service network throughout China, develop centralised research, development and application centres, enhance the existing production centres in China and Australia, and introduce cost effective clean energy and environmental technology into global markets.

DKI is well positioned to serve oil, gas and petrochemical industry with integrated solutions, from engineering design, equipment supply, project implementation and operation process management, to daily site maintenance leveraging its proven and reliable technology in terminal automation systems.

## Software Version Update

In order to keep our customers up to date, the following lists the latest DKI software version numbers:

Omega 3000:	7.10.22
Omega-ML:	02.04.01
OmegaLite:	1.0.1
OfficeKey:	2.48.0001
RTC:	1.12.04



**“Mutual Success Through Teamwork With Customers”**

# News in & around DKI

## Supporting Cancer Research

Australia's Biggest Morning Tea is one of the Cancer Council's leading fundraising events and the largest, most successful event of its kind in Australia. Over \$60 million has been raised since it first began in 1994.

Held in May, DKI invited staff and customers to attend its own version of Australia's Biggest Morning Tea with the theme "Mad Hatters Tea Party". Not only were there lots of laughs, but \$924 was raised for a worthy cause.



May was also the month for the annual 'Ten Pin Bowling' playoff and all round good fun social event hosted by the Social Recreational Club.

**WINNERS:** Jonathan just scraped in first place by one point from Lucas, Alicia picked up third and Resham took the wooden spoon.



Cheney Gu (a striking figure in costume above), joined DKI China in July as Sales Manager - South China. Cheney has a Masters in Metal Process Engineering and a Bachelors in Mechanical and Electronic Engineering, however it was his obvious love for the Peking Opera that caught our interest.

Cheney Gu founded the non-profit Yacui (classical Chinese) Peking Opera Club in Guangzhou. The Peking Opera is a combination of music, dance, art, culture, history and acrobatics. With 32 members aged 20-80, they meet regularly to practice and perform opera shows throughout the year.

Cheney Gu invites friends, customers and colleagues to visit the club and finds it a great way to relax, meet people and add colour to life.

## Welcome Also...

DKI China:

Alan Li - Deputy General Manager with over 20 years in the downstream oil terminal business including process control, metering and sales.

Frank Chen - Sales Engineer South China.

Lu Hongyuan - Logistics Officer.

DKI Malaysia:

Mohd Suffian - System Support Engineer.

Nur Izzati Idris - Sales Engineer.

Yap Jin Phang - Electrical Engineer.

DKI Australia:

Andy Wraith - General Manager Operations with extensive operational experience in the petroleum industry, including engineering, terminal operations and people management.

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