PearlStreet LIMITED

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StreetTalk

A message from Anthony Wooles, Executive Chairman

Welcome to our inaugural client newsletter, which I trust you will find an informative insight into our operations.

This newsletter comes at an exciting time in our corporate history and growth as it has been just over 12 months since PearlStreet acquired ETRS to create a new national force in the Australian energy services sector.

Pleasingly, the synergies and critical mass achieved by combining the two businesses have enabled us to increase and broaden our service offering to new and existing clients, as well as reward our 200-plus staff with greater work opportunities across Australia and overseas.

Industry conditions – particularly in the energy and resources sectors - are among the most buoyant on record and PearlStreet is well poised to further benefit from the ongoing positive outlook. The recent opening of our new office in the Hunter Valley highlights our commitment to invest in growth regions and to form strong and close partnerships with our clients.

Forging strong client partnerships with energy asset owners is becoming even more critical given the increased investment in energy supply infrastructure and the tremendous opportunity cost of plant downtime.

At PearlStreet our experienced and dedicated team of professionals will be delighted to work with you and your team, through what promises to be a continued period of exciting growth and development in the energy sector in Australia.

PearlStreet executive team from left to right. Anthony Wooles, David Eiszele, Geoff Ackerman, Phillip Campbell, Josie Pane, Eric Kreutzer and Garry Gillies

PearlStreet Steps Up Hunter Valley Presence

PEARLSTREET ETRS has consolidated its 10-year association with the Hunter Valley in New South Wales with the recent opening of a new regional office in Thornton.

Executive Chairman Anthony Wooles said PearlStreet's decision to open the Thornton office of PearlStreet ETRS reflected the increased demand from the energy sector for its asset management and maintenance services.

Over the past 12 months, staff numbers of PearlStreet ETRS in the Hunter Valley have grown by 40% as the company continues to win additional work from new and existing clients.

"We highly value our relationship with the energy industry in the Hunter Valley, and this office highlights our desire to work even more closely with local plant operators," Anthony said.

PearlStreet ETRS's commitment to offering local employment opportunities has also prompted it to work with the HunterNet Group Training Company and the Hunter Institute of TAFE in Newcastle in rolling out a program for young trainees.

Triggered by the shortage of skilled workers in the resource and construction sectors – both Australia-wide and in the Hunter, PearlStreet ETRS General Manager Southern Region, Eric Kreutzer, first approached HunterNet last year to discuss the proposed program.

"We had an immediate need for staff in non-destructive testing, materials engineering and metallurgy. Through HunterNet and Hunter TAFE we have designed and implemented a Mechanical Engineering Course that meets industry certification requirements," Eric said.

The candidates receive on the job training three days a week and complete two days a week of theoretical training online through Hunter TAFE. Five trainees currently undertaking the course are expected to graduate at the end of this year.

Principal Materials consultant Arthur Austin carrying out a field analysis with the X-Met3000

X-MET3000

Technology is enabling the easier and quicker identification of metal materials used in the construction of plants and piping, with PearlStreet ETRS recently investing in the most advanced X-ray fluorescence analyser (XRF) on the market.

The correct identification of materials installed in plants and piping – and especially whether an item is of a ferrous and non-ferrous nature – is critical as an incorrect substitute can result in plant shutdown and even loss of life.

Previous generations of analysers have functioned using the more hazardous gamma ray whereby the material under investigation emits a spectrum of X-rays that is later analysed to determine which elements are present and in what quantity.

Instead of using a gamma ray source, the hand-held X-MET3000 operates using a safer, low energy X-ray source and is easier to transport to site or use out in the field. Other key features of the instrument include:

- Materials can be classified to ensure they conform to the intended specification
- Weld metals are able to be analysed, as well as stainless steels, carbon and low alloy steels, nickel, copper, titanium, cobalt, and aluminium alloys
- Wires of less than 1mm in diameter, turnings or shavings or small objects of the same size, can be also identified in seconds
- Quick analysis with computer print out
- Analysis is able to be conducted on hot surfaces up to 400°C

The functionality of the X-MET3000 ties in well with PearlStreet ETRS's fully-equipped NATA chemical laboratory, where an extensive range of alloys are identified each year and added to the company's expanding database for field analysis.

PearlStreet ETRS Innovation Reduces Maintenance Costs

With machinery spare parts in critical short supply as a result of the booming resources sector, PearlStreet ETRS's innovative condition monitoring techniques for detecting early signs of component cracking is being embraced by clients as potentially saving many thousands of dollars in significantly reduced equipment downtime.

Working with Rio Tinto Coal Australia subsidiary, Blair Athol Coal, PearlStreet ETRS developed its new ultrasonic inspection procedure in-house after being alerted to an ongoing problem with cracking and breaking in the equaliser bar of the Caterpillar D11 Track-Type Tractor.

Weighing in at 105 tonnes and powered by a 700 KW engine, these 13 metre long D11 Tractors are a common sight on the central Queensland coal fields where they are used for large scale earth moving tasks. Caterpillar has worked on design modifications to the equaliser bar since the inception of the D11 but these adjustments have still not totally eliminated the failures.

Not only do these failures pose a significant safety risk for operators and maintainance crews, as well as expensive production interruptions and logistical problems, but a cracked or broken equaliser bar can easily cause prolonged and expensive secondary damage to other components such as pivot shafts.

The difficulty in detecting cracking or breakage in the equaliser bar is that it is not fully visible or accessible for inspection once installed. PearlStreet ETRS's development has enabled identification of cracking in the inaccessible Centre Pivot Boss area without the need for costly and time consumer component disassembly.

The availability of accurate client data also enabled PearlStreet ETRS to develop a maintenance program around the optimal component age for commencing inspections and inspection frequency to generate improvements in safety, reliability, and maintenance costs over the machinery lifecycle.

The outcome of this testing subsequently alerted Blair Athol Coal to change out an equaliser bar on one of its D11 tractors that was found to be cracked but had not yet failed. Rio Tinto Coal Australia has also ranked this inspection technique as a High Opportunity Rating in its maintenance improvement criteria.

PearlStreet ETRS is pleased with its progress to date on the new ultrasonic inspection technique but will continue to refine its optimal maintenance modelling with additional data collated from ongoing machinery inspections.

Early detection of cracking prolongs equipment use

SKM and PearlStreet Energy Services Reunite for Offshore Work

Quezon Power Limited's 470MW Quezon Power Station

ONE of the Philippines most significant power stations has provided the opportunity for PearlStreet Energy Services (PES) to again work within a growing offshore market.

Subcontracting to the Power Generation division of Sinclair Knight Merz (SKM), PearlStreet Energy Services recently contributed to the successful completion of the electrical works component of the annual major maintenance and inspection outage at the Quezon Power Station, located 150 kilometres south-east of the country's capital, Manila.

PearlStreet Energy Services and SKM have previously worked together twice on the Quezon plant. The first build-own-operate (BOO) project of its type in the Philippines, the power station is operated by Quezon Power Limited and is one of the key suppliers of electricity to Meralco, the Manila Electric Company, under a 25-year sales agreement.

Located on 87 hectares in the municipality of Mauban, Quezon Province, the 470MW pulverised coal fired plant incorporates low nitrogen oxide burners, a flue-gas scrubber, and electrostatic precipitators to significantly reduce emissions. It also imports low-sulfur coal from Indonesia and features an on-site seawater desalination plant that supplies all of the facility's water needs.

In order to minimise downtime, the inspection and maintenance outage for the entire plant was required to be completed in just 14 days. Working closely with SKM, PearlStreet Energy Service provided quality assurance inspection and surveillance, and technical advisory services for the plant's electrical component, which was being overhauled during the annual outage.

PES also provided technical advisory services and supervision for the installation of new back-up over-current / earth fault protection relays for the plant's 13.8kV and 4.16kV electrical switchboards; regrinding of the generator collector rings; replacement of the unit transformer high voltage terminal bushing; and replacement of one of the electrostatic precipitator transformer rectifier sets.

PearlStreet Energy Services is pleased to have had the opportunity to work again with SKM's Power Generation group in successfully completing this prestigious O&M project within the tight deadline, and both parties are seeking to become involved in further joint projects.

Power plant at Quezon

Associated 275kV Switchyard

Teamwork Assists to Minimise Station Downtime

THE coordination skills, size and capability of PearlStreet ETRS and its crews were recently praised as assisting to minimise the power downtime of a central Queensland plant after a major generator shut down a second unit just prior to one of the station's other units coming off-line for routine planned maintenance.

Working with longstanding client CS Energy – which is owned by the Queensland Government and is the State's biggest power supplier – PearlStreet ETRS had commenced an annual maintenance program in the traditional off-peak season at CS Energy's Callide power station in central Queensland, as well as the Swanbank power station near Ipswich in the State's south-east.

CS Energy also owns and operates the Mica Creek power station near Mount Isa in north-west Queensland, and is currently building the 750MW Kogan Creek power station near Chinchilla in south-west Queensland, which will be the largest single generating unit in Australia upon completion next year. PearlStreet ETRS is also working on the Kogan Creek project, supplying a non-destructive testing crew throughout the construction period.

The PearlStreet ETRS Gladstone team had been engaged to undertake a radiographic inspection of approximately 320 boiler tube welds while the boiler tube section of Callide Boiler 3C was being replaced during a scheduled shutdown. That work initially required two teams operating from an on-site darkroom facility equipped with processing and viewing equipment to enable prompt reporting.

However the adjacent Boiler 4 was also shut down in parallel to Boiler 3C due to what would later be determined as leakage in the boilertubes. With both units now off-line, PearlStreet ETRS was asked to mobilise additional crews for 24/7 coverage to overcome the backlog and get both units back on-line as quickly as possible.

With PearlStreet ETRS's Brisbane crews already tied up with planned shutdowns at CS Energy's Swanbank station, as well as the Stanwell plant, the additional manning was assembled in Gladstone within just 48 hours from as far away as PearlStreet ETRS's operations in Melbourne, with the required extra equipment transported in from Brisbane.

The incredible effort by both CS Energy and ETRS personnel resulted in both units being back on-line within one week after an additional 290 tube sections were replaced and a total of 900 tube welds were radiographed by the ETRS crews.

PearlStreet ETRS management thanks all staff involved for their enthusiasm and co-operation in achieving such a great outcome with CS Energy.

CS Energy's Callide Plant in Queensland

Employee Focus

Based in PearlStreet ETRS's Ipswich branch in Queensland, Andrew Blake joined the company in February 2006 as a Materials Engineering Consultant. His role involves performing product testing, failure analysis and litigation support with clients operating across the mining, oil and gas, construction and retail sectors.

Andrew says the biggest challenges of his role are adapting to the commercial pressures of industry and identifying exactly what the client wants even when they are often not certain themselves.

Born in Adelaide and raised in Cairns, Andrew was inspired to take up materials engineering after being exposed to metallurgy in his first year of engineering at the University of Queensland.

Andrew followed up his Bachelor of Materials Engineering by completing a PhD on solid solution hardening and softening of magnesium-zinc alloys. These studies resulted in him receiving two prestigious publication awards as the Editor's Choice in Physica Status Solidi, and for best student paper at the TMS Magnesium Technology conference held in San Francisco last year.

PearlStreet ETRS Materials Engineering Consultant, Andrew Blake

Married to Sara earlier this year, Andrew has a wedding anniversary date few can forget – April 1! Away from the office he enjoys cycling and photography, but is always seeking that challenge for new learnings: whether it be building from a cocktail arcade machine from scratch or a digital clock with valve display!

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