FACE-TO-FACE WITH GEKKO’S SERVICE MANAGER

The role of Gekko’s Service Manager, Leon Dickinson, has a quality focus and includes responding to customer feedback and ensuring that Gekko equipment operates at optimum performance.

Leon combines excellent business skills and a practical problem-solving ability with a wide range of experience in the mining industry. The Services Division capabilities include laboratory test work, spare parts, the organisation of technical visits and training.

According to Leon the most important part of his job is customer relations. “My main priority is to meet with customers and tailor advice that ensures their Gekko gear is giving them the best possible results.”

HOW GEKKO’S SERVICE PROGRAM CAN VALUE ADD FOR YOU

“Give me a call and let’s talk about your needs. Then we can work out how Gekko Services will value add to your operation – whether it’s optimisation, tailor-made training on-site, providing a solution to a specific problem or a combination of these services.”

“There's really only one thing you need to know … your bottom line will improve when you utilise our Service Program because you will be getting more out of your equipment.”

Leon Dickinson

see page 2 for details of Gekko’s on-site services

Welcome to our first issue of THE GEKKO UPDATE, specially produced for our customers working on sites around the world. We’ll have news about current installations and reports about how our gear is performing at different sites. We’ll bring you some helpful advice and make recommendations about ways you might be able to improve your operation.

So, keep in touch. Let us know how things are going. If you have anything you’d like covered let us know and we’ll get onto it. If you have a problem with any Gekko equipment give us a call - we want to help and we’ve got the people who know how to fix your problem. We’d also love to hear from you about things that are going well at your site.
GEKKO’S ON-SITE SERVICES

The Gekko team has expertise covering a wide range of areas. It also has a huge bank of knowledge based on data and experience gathered from many sites that can be used to optimise your equipment. The team can problem-solve any issues you may have efficiently and effectively.

OPTIMISATION

Gekko’s technical staff will visit your site to assess your operation and tailor a plan to optimise the performance of your equipment.

> Gravity Audits > Process Optimisation
> Control Systems Update > Test Work

ADDITIONAL TRAINING ON-SITE

Hands-on, theory-based or a combination, Gekko’s on-site training programs are targeted at your operators to give them the knowledge and skills that will enable them to have ongoing control over optimising the performance of your equipment.

> Operational > Maintenance > Metallurgical

Benefits

> Increase performance
  - Increase availability (eg by eliminating potential down time)
  - Decrease daily operating costs (eg by decreasing reagent consumption)
> Increase capacity (eg by reviewing feed preparation systems)
> Increase recovery (eg by adjusting operating parameters)

Contact Leon Dickinson at services@gekkos.com or call him on +61 3 5339 5859 or +61 448 334 324 to discuss any of the Gekko Services listed above.

HOW TO MAXIMISE YOUR BOTTOM LINE USING GEKKO’S SERVICES

5 STAGES IN THE LIFE CYCLE OF AN ILR

1. COMMISSIONING & TRAINING ON-SITE

2. SETTLING IN PERIOD (1 TO 4 MONTHS)

3. OPERATION NEEDS REVIEW (AFTER SETTLING IN PERIOD)

   HOW GEKKO SERVICES CAN SUPPORT YOU

   Review of operation needed to ensure maximum output > Optimisation should take place typically 1 to 4 months after commissioning > Additional training on-site can be arranged at the same time as optimisation

4. INEVITABLE CHALLENGES ARISE

   HOW GEKKO SERVICES CAN PROVIDE SOLUTIONS

   Trained staff are promoted or leave > Tailor a site-specific training program
   Change in ore mineralogy > Perform lab test work to determine the expected Gravity Recoverable Gold (GRG) component of your changed ore source > Gekko flocculation test kits can be used to determine the appropriate type and dose of flocculant (floc)

5. CHANGES OCCUR IN YOUR SITUATION

   HOW GEKKO SERVICES CAN HELP YOU MAXIMISE YOUR CAPACITY

   New ore source found > Perform lab test work to determine the best way of processing the new ore
   Your operation needs increased capacity > It’s time to start talking again . . . give us a call and we’ll start the cycle over

11. Melanie York with Steve Tavani at Thunderbox, Western Australia • 12. ILR at Kencana, Indonesia • 13. Canatuan, Philippines • 14. Leon en route to Wodgina, Western Australia
ACHIEVING OPTIMUM SOLUTION CLARITY

The Gekko ILR achieves the highest recoveries because of its ability to treat the fines as well as the coarse component of the feed. Alternative units eliminate the fines prior to treatment. As a result the ILR uses a dedicated clarification step that produces a clear pregnant gold solution quickly and effectively.

ILR CLARIFICATION PROCESS

During leaching significant fine solids are recirculated from the solution cone through the drum and back. Flocculant (floc) is added to the recirculating pregnant solution immediately after leaching. The drum ceases to rotate then is used as a settling chamber. The solids settle out in the drum and clear solution overflows to the sump and is returned to the solution cone.

WHY PERFORM FLOC TESTING?

Clarification parameters are optimised during ILR site commissioning. However, the range of flocs available at this time may be limited or unsuitable. Furthermore the gravity concentrate mineralogy may change over the mine life. It is recommended that floc testing is performed to determine the appropriate type and dose of floc.

Typical parameters for a large batch ILR are . . .

Flocculation: 15 minutes — 50 L/t
Settling: 45 minutes

Gekko can perform test work when on-site or alternatively we can supply standard test procedures and floc test kits.

Contact Leon Dickinson at services@gekkos.com or call him on +61 3 5339 5859 or +61 448 334 324 for more information or to obtain a detailed ILR Batch and ILR Continuous Process Flowsheet. These flowsheets can also be viewed on the website www.gekkos.com

AN EXAMPLE OF AN EXCELLENT RESULT, JUNDEE WA

“Solution clarity is very good with minimal floc addition and the gold room operators are all very happy with the ILR . . . there has been very little maintenance required on the unit.”

Greg Farrell, Process Superintendent > Junee

To achieve this excellent outcome the Junee site invested in a dedicated floc system to improve their solution clarity. In the post-installation period they optimised their reagent usage and saw the benefits of introducing a dedicated floc system as distinct from the generic plant floc. All that was required was the addition of a small drum, an agitator, a pump and integration into the ILR PLC.

Contact Steve Tavani, Gekko’s Technical Manager at services@gekkos.com or call him on +61 3 5339 5859 or +61 448 334 324 for more information or to obtain a detailed ILR Batch and ILR Continuous Process Flowsheet. These flowsheets can also be viewed on the website www.gekkos.com
EXCELLENT MAINTENANCE AT KENCANA, INDONESIA

Leon was impressed by the commitment and dedication of the guys in the met, maintenance and operations teams. “From my observations the team at Kencana had a well-organised maintenance plan. All equipment and the operations area were kept very clean and tidy, and there was evidence of regular greasing of component parts.”

“They are aware of the need to keep spare parts on-site because of their remote location and the lead time that is necessary for getting spare parts to the site. This means worn parts can be replaced before they break down.”

“Theyir installation is among the best that I have visited to date. The ILR at Kencana runs perfectly and so they have no down time.”

KEEPING SPARE PARTS ON-SITE

WHY?
The answer is simple, AVAILABILITY. It is essential to consider which spare parts should be on-hand when operational and critical maintenance is required. If you rely on ordering parts after something wears out or breaks down your operation will face down time while you order and wait for parts (sometimes with a lengthy lead time.)

WHAT?
This answer is not simple because each site will have different needs. Leon Dickinson can help you determine a list of spares appropriate for your situation. There are two areas that should be taken into account when considering which spares you should keep on hand at your site:

Operational the result of normal wear and tear
> Mechanical components such as valves and pumps

Critical the result of a malfunction or breakdown
> Electrical components such as a proximity switch or level sensor

Typical maintenance consists of
> Daily greasing of the grease-packed gland
> Regular visual inspection of the air fittings, hoses, pipes, fluid levels
> Regular inspection to detect any abnormal noises

Slurry/Solution Pump
The slurry/solution pump is a Warman® rubber-lined slurry pump with a high seal expeller. This configuration provides excellent wear resistance and high availability.

Typical maintenance consists of
> Daily greasing of the tyres
> Weekly lubrication of the ‘O’-ring’ chain with light chain oil
> Greasing of the sealed roller bearings
> Visual inspection of the drum alignment, especially in the first few months, to identify any settling of the foundations

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The ILR has been designed with ease of maintenance in mind. Typically only two electric motors are fitted to an ILR, one for the drum drive and one for the slurry/solution pump. Maintenance is focused on these areas.

SUMMARY OF ILR MAINTENANCE

Drum Drive Train
The ILR drum is rotated by chain/sprocket via a reduction gearbox. The slow rotational speed results in low wear in the drive train and drum support system. The drum support system consists of machined steel tyres riding on machined steel rollers running on heavy duty sealed roller bearings. This configuration results in low wear and therefore high availability of the ILR when properly maintained.

NO DOWN TIME FOR WELL-MAINTAINED ILRs

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