



Process Engineering

Capability Statement



We are **Engineering
Amplified**

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The **First Choice**
in **Engineering**

About Agilitus

Since 2017, we have expanded Australia-wide, delivering quality and reliable services in engineering, design, and project management across all disciplines and sectors.

Founded by colleagues Craig Bloxham (Managing Director) and Tony Comerford (Technical Director) after decades in the sector, their ethos of creating a business removed of staid bureaucratic processes still holds true today. It's this uncompromising philosophy that remains the hallmark of the business' true success.

"When you're one of thousands in a public listed company, it gets complicated, and Tony and I wanted to keep things simple. Complexity should not be in the management of the business, just the technical aspects of engineering. We wanted to focus on quality services and building a strong reputation of doing good work; the rest is history," said Craig.

With a vision to be the most sought-after global multidiscipline engineering business, attracting and employing the best people with like-minded values continues to be an important function of the business.

"To make it all work, you've got to have the right culture. If your team enjoy the work and the people they work with, this enthusiasm is hard to resist.

It's our distinction that no one can copy. Our clients value this in the way we work alongside them," said Tony.

“

We're known for our expertise and integrating solutions across all disciplines to deliver a quality product. It's about being consistently predictable, reliable and value for money.

”

Craig Bloxham - Managing Director

Agilitus at a glance



480+
Workforce
With high performance culture and low turnover



6 Offices
Across Australia, Perth HQ



250+
Years
Cumulative experience of the Management Team



180+
Clients in the Resources, Energy & Infrastructure Sectors



20+ MSA
Agreements across blue-chip customers



ZERO
Lost time to injury in the last 5 years

Multidiscipline services

Agilitus is a multidiscipline engineering, EPCM and ESG consultancy with a skilled, collaborative team delivering innovative solutions to the Resources, Energy & Industrial sectors.

Agilitus offers a range of services to meet any project's most stringent requirements across the entire lifecycle.

The team is focused on providing customised project design, engineering, EPCM, ESG advisory and rehabilitation capabilities with experience in mine site infrastructure and process plants, rail systems, bridges, haul roads, ports and marine, NPI facilities, energy, as well as power supply and distribution.

Agilitus has an in-depth understanding of the project lifecycle. This includes supporting clients through all stages of the project's delivery, from exploration to conceptual design and feasibility studies to detailed design, approvals, construction support and operations, rehabilitation and closure.

- Asset management
- Civil
- Coastal
- Critical and precious minerals
- Decarbonisation
- Desalination
- Design and technology
- Digital consulting
- Electrical
- Energy
- Gold
- Ground engineering
- Infrastructure
- Heavy haul rail
- HSEQ solutions
- Hydraulic mining
- Hydrology and water
- Mechanical
- Ports and marine
- Process
- Project delivery services (EPCM)
- Pumping and piping
- Stakeholder engagement
- Structural
- Tailings management, mine closures and rehabilitation



Craig Bloxham
Managing Director and Co-founder
30+ years' experience

We develop engineering solutions suitable for our client's purposes, rather than an engineering solution suitable for your business perspective in terms of managing that risk.



Gavin Wearne
Director – Ports and Marine
23+ years' experience

Success is being a trusted advisor for our clients, delivering successful projects, and being a great place to work. We have this here.



Jason Fong
Director – Geotechnical
30+ years' experience

Agilitus has been built on finding innovative solutions, best fit solutions for problems that often a lot of our competitors haven't been able to solve.



Tony Comerford
Technical Director and Co-founder
35+ years' experience

We're in the business of solving engineering challenges but it's more than that; it's the difference we can make for clients, our people and community. It's about delivering on our promises and always exploring better ways of finding solutions.



Jamie Little
Director – Commercial and Project Delivery
23+ years' experience

We do more than just value adding; we're actually strategically looking at the whole scenario, the big picture to deliver what clients need, not necessarily just what they asked for.



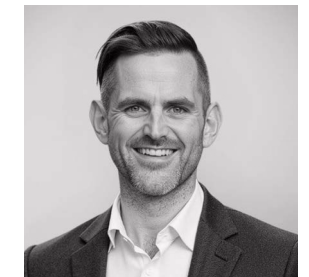
Nicolle Jenkins
Director – Marketing and Business Development
30+ years' experience

Returning clients is the true indicator of our success. This represents a true commitment to solving complex problems and optimising solutions. It's who we are.



Tony Daniel
Chief Operations Officer
21+ years' experience

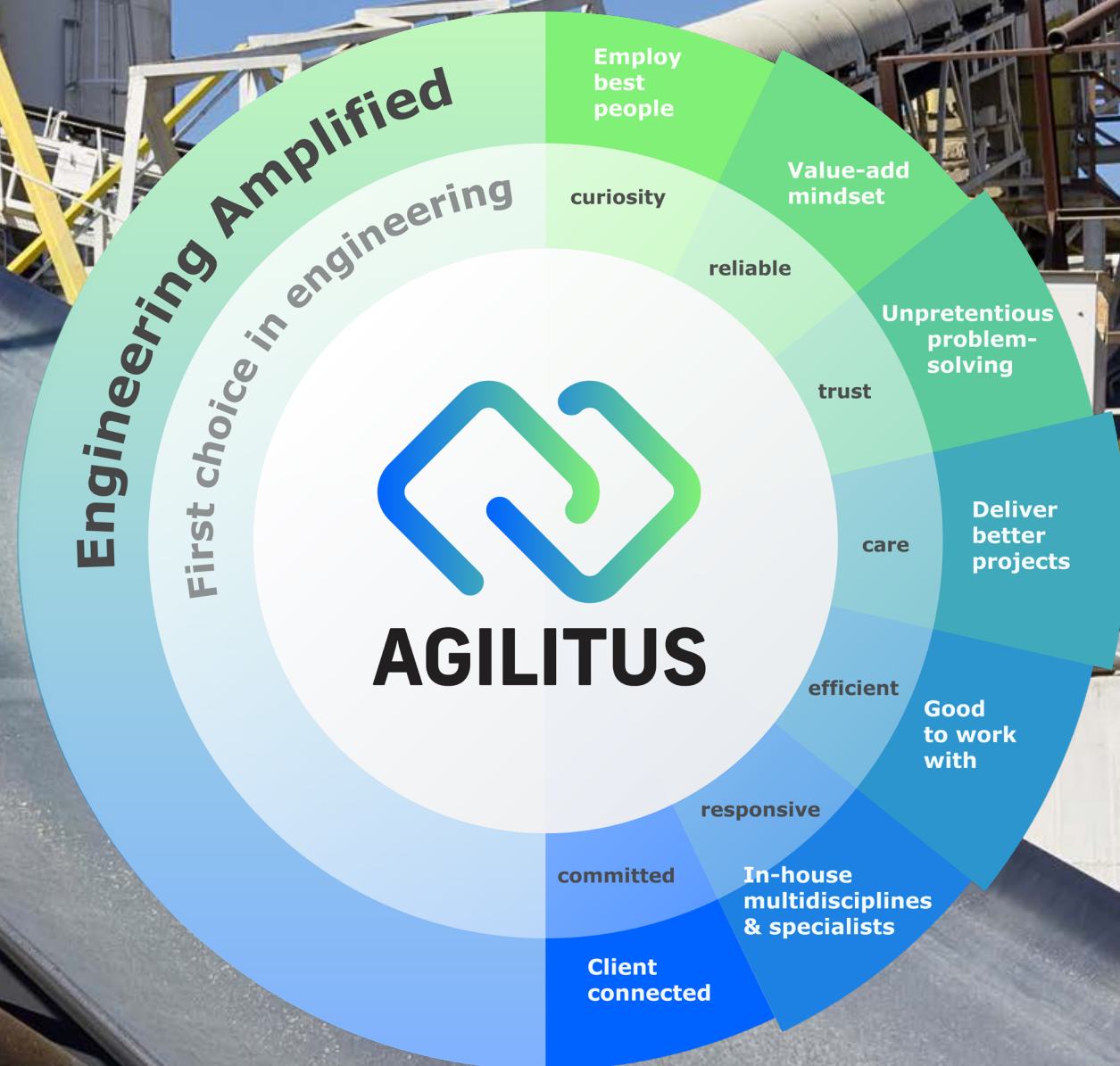
We combine exceptional technical expertise with practical, value-driven solutions for clients. This builds mutual respect and confidence in our solutions, knowing that we explore all avenues for the best fit solution for the project.



Matt Moreland
Director – Engineering
15+ years' experience

We don't do things just because that's the way they have always been done. We're not wedded to that thought process. We're always asking, what are you trying to achieve and what solution do you need.

Our difference



People & culture

We create an environment where people thrive and are empowered, safe, and supported to innovate. **Our team genuinely enjoys the work and the people they work with, and that enthusiasm becomes a powerful force.** Clients feel it. It builds trust, momentum, and confidence.

100% employee owned

When our clients succeed, we succeed. **Being 100% employee-owned means, we're personally invested in delivering outstanding outcomes.** This ownership mindset shows up in the energy we bring, the pride we take, and the results we deliver.

Brownfields experts

We're a leading brownfields specialist, with most of our work delivered in live, operating environments. Our multidisciplinary in-house team, including highly valued specialist services, provides clients with a true end-to-end capability under one roof.

We don't just work in brownfields; we excel in it.

Best-fit solutions

We design best-fit solutions which integrate seamlessly into existing operations, reduce disruption, and mitigate risk. **Our proven methodologies allow us to move with precision and pace,** applying decades of practical experience to unlock smarter, safer, more cost-efficient outcomes.



Our process engineering team



Chris Larder
Principal Project Engineer
30+ years' experience

Experienced in project and study management for mineral processing plants spanning across the fields of base metals, gold, iron ore (magnetite and hematite) and battery metals metallurgy. He is experienced in general and plant management to general manager/senior site executive level. He has delivered cost effective process development, major testwork program development, management and reporting, design and operation of pilot plants, as well as budget preparation and cost management.



Jonathon Childs
Principal Process Engineer
20+ years' experience

Jonathon is a Process Engineer with more than 20 years' experience delivering technical leadership and practical process engineering solutions across the resources and minerals processing sector. His background spans feasibility studies, detailed engineering support, commissioning, ramp-up and steady state operations, with hands-on involvement in a wide range of commodities including mineral sands, rare earths, graphite, gold, alumina and base metals. He has a strong track record of translating metallurgical testwork and plant trials into robust flowsheets, technical scopes and financially sound project outcomes.



Smit Chauhan
Senior Process Engineer
11+ years' experience

Experienced in delivering end-to-end process design, optimisation, and commissioning across complex industrial processes like chemicals, utilities, wastewater treatment plants, and energy-related infrastructure. He has a strong background in process calculations, PFDs, P&IDs, equipment sizing, process modelling, HAZOP, and commissioning support.

Smit has worked extensively in brownfield projects supporting capacity ramp-ups, debottlenecking studies, and practical site-based troubleshooting where constructability, operability and safety are critical. He is experienced in coordinating with multi-disciplinary teams and is recognised for translating complex process requirements into safe, compliant, and buildable designs.



Matheus Pimentel
Senior Process Engineer
7+ years' experience

Experienced with mineral characterisation, ore processing and design of pre-feasibility, feasibility, and executive projects for mining enterprises. Matheus has process engineering experience across a range of commodities including downstream lithium, rare earths, aluminium, base metals and iron ore.

Matheus' project experience includes crushing plant design, dewatering plants, copper flotation circuits and detailed design for slurry pipelines to name a few. His operational experience includes both pilot plant test work and full scale commissioning and troubleshooting for flotation circuits in copper and lithium concentrators. Matheus also has strong detailed design capabilities relating to pump and valve sizing and selection.



Aaron Cohen
Senior Process Engineer
9+ years' experience

Experienced across production and EPCM project environments, specialising in mineral processing and hydrometallurgy. He has worked across a diverse range of commodities including lithium hydroxide, nickel, cobalt, titanium dioxide, and mineral sands. Aaron has strong technical capability in process design, simulation, and plant data analysis, with hands on experience spanning milling, leaching, crystallisation, solvent extraction, precipitation, and solid-liquid separation circuits.



Ben Eiszele
Project Engineer – Process
5+ years' experience

Ben holds a BEng in Chemical Engineering and Science, with more than 5 years experience as a Project Engineer in the energy sector project delivery encompassing conventional oil & gas, renewable energy, and hydrogen initiatives. He has a proven track record in leading multi-disciplinary engineering teams, conducting feasibility studies, and supporting complex EPCM projects from concept through execution. Benjamin is highly skilled in stakeholder engagement, technical assessment, risk mitigation, and developing innovative solutions for energy systems optimisation. He has demonstrated expertise in project coordination, budget management, and regulatory compliance across APAC and international projects.

Our process engineering team



Jack Birch
Graduate Process Engineer
2+ years' experience

Experienced implementing mineral processing technologies throughout the entire project lifecycle from feasibility study through to FEED, detailed design and construction support on Greenfields projects, including the Christmas Creek Green Iron Project and Alcoa/Jogmec/Sojitz joint venture Gallium project. He has experience with crushing, grinding, utilities supply and treatment, thickening and de-watering, direct reduction of iron ore using hydrogen, smelting, ion exchange and electrowinning.

Process engineering and design for asset optimisation

Agilitus's proven approach to deliver schedule and cost benefits through clever engineering and true collaboration is what sets us apart.

The process engineering team at Agilitus provides end-to-end support for the design, development, and optimisation of processing plants across the resources and industrial sectors. We work from the earliest stages of a project, developing project definitions, mass balances, and flowsheets, through to detailed process design, construction support, commissioning, and operational ramp-up.

Our team applies deep expertise across a broad range of commodities, including lithium, gold, copper, coal, rare earths, nickel, phosphate, vanadium, iron ore, and chemical processing facilities. This includes experience in hydro- and pyro-metallurgy, minerals processing, and downstream chemical production.

In practice, our team helps clients plan and validate process routes, manage and interpret test work, design and model process circuits, and prepare the full suite of process deliverables required for project execution. We also provide on-the-ground support during construction, commissioning, and optimisation, ensuring that plants achieve safe, reliable, and efficient performance.



Process engineering

Delivering bespoke design for projects with a focus on optimising costs and increasing circuit efficiencies.

Agilitus' process engineers have amassed considerable experience in mining, mineral processing, hydro and pyro-metallurgy, with specialist expertise in areas such as metallurgical test work management, flowsheet development, pilot and demonstration plants, process modelling and simulation, commissioning, operations and maintenance.

Our team is also committed to delivering renewables-based hydrogen and ammonia projects. We bring relevant experience in H₂ and NH₃ production. This includes process design and novel technology development for H₂, process safety, hazardous area classification as well as operations and management support for large scale air separation units.

From concept/trade-off studies to detailed engineering and commissioning support, our specialised team offers full engineering and design services, procurement management and construction management services.

Collaborating with our clients, we tailor our approach to meet project requirements of budget, scope and schedule. Our engineers provide high quality process deliverables including PDC, mass & energy balances, PFDs, P&IDs, Process Control Philosophies and commissioning plans, through to metallurgical accounting assistance and debottlenecking/optimization support on site.

Capabilities

- Lithium plants (hard rock and brine)
- Rare Earths
- Nickel
- Vanadium
- Phosphate
- Gold
- Iron Ore
- Copper
- Base metals including tin, zinc and lead
- Mineral sands
- Alumina (Bayer Process) and High Purity Alumina (HPA)
- Petrochemicals & Chemicals
- Silver
- Brine processing design and operations



Project phases

Our Process Engineering team offers services throughout the project life cycle covering concept, PFS, FS and Detailed Design through to construction and commissioning support.

Capabilities

- Scoping/Concept/OoM Studies
- Pre-Feasibility Studies
- Bankable Feasibility Studies
- Front End Engineering Design (FEED)
- Detailed Design
- Independent Review & Due Diligence
- Construction Support
- Commissioning
- Debottlenecking, Ramp-Up and Process Optimisation
- Brownfields Modifications
- Utilities & Reagents Designs



Christmas Creek Green Iron Project



Mt Holland Concentrator Operations Ramp-Up



Client



Agilitus was awarded the interface detailed engineering design for FMG’s CCGIP Demonstration Plant.

Value

Undisclosed

Agilitus was selected to undertake the engineering for Fortescue’s Christmas Creek Green Iron Project (CCGIP) in Western Australia’s Pilbara region. The process plant will produce over 1,500 tonnes per annum of high-purity green iron metal, utilizing green hydrogen generated at FMG’s existing hydrogen facility at Christmas Creek.

The trial commercial plant CAPEX was approved for USD\$50M and commenced in August 2024, with first production anticipated in late 2025.

The plant will leverage FMG’s renewable energy infrastructure, including both gaseous and liquid hydrogen production, storage, and refueling facilities. An electric smelting furnace will be used to produce high-purity green iron suitable for global steel production.

Agilitus provided a multidisciplinary team of engineering professionals from our Process, Mechanical, Piping, Electrical & Controls, Civil/ Structural and Project Delivery disciplines to complete the detailed design.

A number of equipment vendors and technology providers provided a challenging number of interfaces to manage, particularly around the NPI and Balance of Plant Areas. Agilitus utilised its advanced process plant understanding combined with industry leading project management methods to successfully deliver the engineering design and project delivery leading into construction.

The complex process flowsheet included a beneficiation plant, direct reduction of iron using hydrogen, smelting, granulation and packaging.

Additional plant included hydrogen reticulation, nitrogen generation, compressed air, multiple water circuits, water treatment and cooling water circuits along with additional reagents.

Client



Covalent Lithium engaged Agilitus to assist with debottlenecking and ramp up at its spodumene mining operation at its Mt Holland Concentrator.

Value

Undisclosed

Agilitus’s scope of services for this project included provision of an engineering team comprised of a Project Manager, a Principal Process Engineer and 2 back to back process engineers. The Engineering team assisted Covalent Lithium with the following objectives:

- Achieve PDC throughput and recovery
- Investigate and close out punchlist items and debottlenecking activities.
- Review existing plant design and consultant reports and make recommendations.
- Develop contractor scopes of work and RFQ documents for plant improvement projects.
- Work with client metallurgists to design newmetallurgical laboratory and plant optimization tasks.

The contract duration was extended multiple times and Agilitus provided numerous Technical Memorandums which assisted the client in fault finding and general plant optimisation.

Scopes of work were developed and issued to contractors to tender on numerous plant improvement projects. Agilitus assisted the client in expeditiously closing out construction punchlist items by conducting technical analyses of pumping and reagent design and recommending best courses of action to improve reliability, throughput and maintenance.

Iron Ore Leaching Project - Scoping Study



Ore Sorter Plant - PFS & DFS



agilitus.com

Client


Value
Undisclosed

Location
Undisclosed

Duration
Undisclosed

HILTCRC engaged Agilitus as the engineering partner to review the flowsheet and make recommendations on technology and unit operations, energy efficiency, CAPEX, OPEX and process engineering for a novel flowsheet.

Agilitus was engaged as a key project partner for the ARENA-funded research and development project that is leading the decarbonisation research for Australia’s iron ore and steel industries.

Led by HILTCRC, the project aims to improve the commercial viability of a scalable hydrometallurgical caustic leaching process for low-grade iron ore beneficiation through the generation of reagents and valuable by-products from seawater brines using reverse osmosis (RO).

Utilising our multi-disciplinary engineering expertise, Agilitus is supporting the research and development process by advising on the technical and economic viability of the project and undertaking the engineering design of the process pilot plant.

Embracing a circular economy approach, the project investigates the use of natural resources directly available, given the proximity of the ore in the Pilbara to the ocean, and reuses various byproducts from the process or generates saleable byproduct commodities.

It has the potential to generate additional byproduct revenue to offset some of the hydrometallurgical beneficiation costs and produce higher grade iron ores suitable for direct reduced iron (DRI) processing to generate domestic green steel.

The project demonstrates a coordinated effort to tackle challenges and explore opportunities in the field of low emission iron and steel. It has the potential to contribute significantly to the advancement of technological solutions required for lowcarbon products to bring us closer to net zero.

Client
Undisclosed

Value
Undisclosed

Location
Undisclosed

Duration
Undisclosed

Our work has shaped the plans for a world-leading minerals producer to meet increasing demand for lithium driven by the global energy transition.

Agilitus conducted the Pre-Feasibility Study (PFS) and the Detailed Feasibility Study (DFS) for our client’s proposed two-stage crushing, screening, and Ore Sorting Plant (OSP).

Our client had marginal stockpiles with high levels of iron contamination that could not be processed through the existing Chemical Grade Plant (CGP). After extensive testing, it was concluded that an OSP would be required for the pre-processing of marginal stockpiles. By pre-processing these marginal stockpiles through sorting the product can be blended through the crushing circuit into the CGPs.

This expansion would enable our client to meet the increasing demand for lithium driven by the global energy transition such as electric vehicles and energy storage.

Agilitus assembled a multidisciplinary team of professionals from our Project Delivery, Civil/Structural, Process, Mechanical, Piping, Electrical and Energy practices to complete the concept design and detailed design.

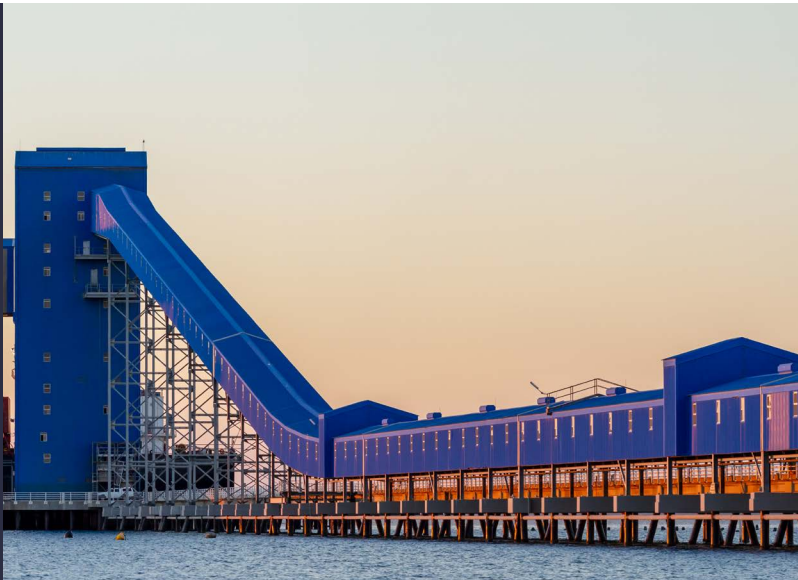
The PFS explored the options for designing the Ore Sorting Plant, which was designed to guarantee performance between performance between 1 and 2 Mtpa. During the study, the plant transitioned from a semi-mobile to a fixed plant.

Our team modelled the crushing sizes based on the proposed optical sorters’ throughput and size capabilities. External factors such as the mobility of the plant, and environmental constraints such as noise and dust were all considered due to site’s location.

Case studies

Case studies

Kwinana Beach Refinery - Lime Addition Process Audit & Detailed Design



Client



Value

Undisclosed

Location

Kwinana, WA

Duration

2024

Agilitus was engaged to undertake a preliminary audit to determine the design impacts from a change in reagent type and then detailed design of any resulting modifications to the plant.

Covalent Lithium has engaged Agilitus to undertake a review of the impacts of a process change to its limestone addition and neutralisation circuits and develop a detailed design for modifications to the plant at the Kwinana LiOH Refinery in Western Australia. The plant is still in late stages of construction and the objective is to incorporate the design changes in time for commissioning activities in late 2024.

To support the shift in processing needs within the lime addition circuit at the Kwinana Beach Refinery, Agilitus is conducting a two staged approach to this scope of work. The first stage will be an audit of the existing circuit design including process, piping, valves, equipment and electrical requirements to assess its suitability for the new processing parameters by presenting a range of options for the client to consider.

Stage Two will comprise of a selection and detailed design of the selected option for the system to function effectively. This evaluation accounts for modifications in the process criteria for the calcium carbonate and sodium hydroxide circuits, along with any downstream impacts in the neutralisation and filtration unit operations.

Gold Mine Operation



Client

Undisclosed

Value

Undisclosed

Location

Undisclosed

Duration

Undisclosed

An Australia gold producer engaged us to conduct a Safety Study and Process Engineering Review of an existing elution circuit at its mining operation.

The extensive study included the delivery of a HAZOP workshop to address engineering improvements, resulting from the site's recent production upgrade.

Agilitus works package included reviewing and updating the Process and Instrument Diagrams as well as the operational documents.

Our team assessed the elution columns, acid wash columns, and other ancillary equipment in the gold recovery area. Detailed design for few major upgrades have also been completed.

After the update of the elution circuit, we reviewed hazards and risks associated with acid wash and elution columns which included:

- Assisting with action plan post regulatory inspections from Western Australia Department of Mines, Industry Regulation and Safety (DMIRS)
- Designing the valves that enable dam operations to isolate Elution columns
- Identifying hazards and operability issues based on the design post upgrade
- Conducting a HAZOP workshop
- Improving the procedures and permits for safe operation and maintenance of Elution Circuit.

You're in good company

We work alongside many notable companies across Australia.



Technical excellence

We are passionate about leveraging their technical ingenuity to solve complex problems.

Technical excellence is the bedrock of our business. It drives our people and propels the outcomes we provide for clients, communities, asset owners and operators, and financiers.

Our dedicated professionals and subject matter experts focus on understanding our clients' business objectives, their desired project outcomes, as well as the latest industry research for the sectors in which we operate.

A premium client experience

The success of our project work depends on leveraging the best expertise of our people. That's why we allocate the most qualified professionals to help realise our clients' development vision and bring their projects to life.

Our work is underpinned by strong engineering design principles, industry-leading technology and pragmatic advice to deliver exceptional outcomes, every time.

This approach provides the following benefits:

- Ease of understanding of regulatory frameworks
- Efficient navigation through the development approvals process
- Protection and preservation of our cultural heritage, the environment and waterways
- Healthy, transparent and trusted relationships are established with stakeholder groups
- Respectful liaison with Traditional Owners is undertaken
- Fair and equitable outcomes are achieved for First Nations' communities
- Project knowledge is retained, including lessons learned
- Innovation is embraced and deployed.

The quality and excellence of our work and ability to deliver the best technical and cost-effective solutions for our clients is guided by our Technical Leadership Team.

Technical Leadership Team

Led by the most senior members of our business, this team facilitates learning and knowledge transfer, professional collaboration and mentorship to drive continuous excellence in our technical capabilities. It also encourages our people to perform to high technical standards and rewards staff for incorporating innovation into projects.

Our dedicated professionals and subject matter experts focus on understanding our clients' business objectives, their desired project outcomes, as well as the latest industry research for the sectors in which we operate.



Safety is at the heart of our business

Our diverse and culturally aware teams embrace safe work practices that are environmentally sound.

Safety is integral to everything we do at Agilitus. We care about our people, clients, and the communities in which we operate, and strive for zero harm in everything we do.

Health, safety and quality are embedded in our work practices, while heritage and sustainability are considered throughout the entire project life cycle.

We recognise the importance of continuously reviewing safety in design issues at all stages of a project, from investigation, design, construction, operation (including maintenance), closure and rehabilitation.

Exceeding regulatory obligations, we leverage a formalised Health, Safety, Environment and Quality Management framework that allows us to analyse and implement practical measures to mitigate risks.



Our vision is to be the most sought-after global multidiscipline engineering business; attracting and employing the best people with like-minded values while working on projects that make a difference to our communities.

We are **Engineering Amplified**

Let’s talk about your project

Head office Perth

Level 10, 240 St Georges Terrace
Perth WA 6000
+61 8 6375 9100

Project office Perth

Level 3, 168 St Georges Terrace
Perth WA 6000
+61 8 6375 9100

Mandurah

Level 2, 55 Sutton Street
Mandurah WA 6210
+61 8 6375 9100

Townsville

6 Cottell Street
Hyde Park QLD 4812
+61 7 4724 0640

Brisbane

Level 13, 333 Ann Street
Brisbane QLD 4000
+61 7 4724 0640

Newcastle

Suite 2 Level 3 175 Scott Street
Newcastle NSW 2300
+61 2 4091 2700



Leadership

- Understanding of client needs
- Technical Leadership Team governance
- Strong chartered presence
- Adherence to technical standards & regulatory instruments
- Committed to technical excellence
- Striving for low-carbon impacts



Systems

- ISO Accredited Quality Management System (QMS)
- Design assurance
- Engineering verification procedures
- Safety in Design
- Net Zero in Design
- Risk mitigation & management
- Project governance (action tracking, monitoring, performance and auditing)
- Continuous improvement (lessons learnt)



Characteristics

- Client centric
- Risk adverse
- Reliable
- Accountable
- Innovative
- Simplification
- Community and culture



 agilitus.com
 info@agilitus.com

