



Advertise your products, services or business in the WASM Alumni Review and on the web. Reach your target markets, advertise employment opportunites, increase your revenue and strengthen your brand.

The WASM Alumni Review is published four times a year and distributed to over **8000** graduates, partners, sponsors and friends across the globe.

WASM Graduates are more than engineers; they are leaders and experts within the resource sector and beyond.

WASM Alumni offers advertisers exclusive access to our members and partners.

- Reach top industry executives through our website and social media channels.
- Put your business front and centre as an event sponsor.
- Entice members with high quality merchandise.
- Book a full, half or quarter page spread in the WASM Alumni Review.

for information on advertising solutions, discounts and other benefits please contact WASM Alumni at

admin@wasma.com.au

SANDVIK AND WASMA A ROCK SOLID FUTURE

Sandvik and WASMA believe a rock solid partnership is the best foundation to support the future of mining.

As WASM Alumni's Premium Partner, Sandvik is privileged to have the opportunity to network with, mentor and learn from the next generation of mining leaders.

Sandvik and WASMA - partnering for a better future and education in the resources sector.

To find out more about Sandvik Mining and Rock Technology, visit us at mining.sandvik.com



MINING.SANDVIK.COM





CONTENTS







PRESIDENTS MESSAGE	5
WASMA PROFILE Alex Atkins — Charter 4 Change	8
WASMA REVIEW Flexibility in the WorkplaceRUC Supports STEM UniTED	13
EVENT CALENDAR	18
WASMA NEWS	22
BUYING YOUR FIRST HOME	24
WASMA PODCASTS	25
WASM SCHOLARSHIP FUND	28
SPONSORSHIP OPPORTUNITIES	29

 $\label{lem:magazine content} \begin{tabular}{ll} Magazine Content by Ann Meyer | admin@wasma.com.au \\ Magazine Design by Shannon Jones | shannonjonesdesign@bigpond.com \\ \end{tabular}$



AUTUMN REVIEW



Welcome to your Autumn Review 2019. Our cover for the Autumn Edition features Jade Singleton, WASMA's treasurer and South32's Inclusion & Engagement Lead, presenting our 2019 Gold Medal to Connor O'Neil a graduate of Chemical Engineering. The presentation took place at the WASMA annual Graduation Lunch, RAC Arena on February 16. A sell out event, key speakers included Alex Atkins and WA's Treasurer Ben Wyatt.

n the autumn edition we feature our brilliant subcommittee's projects and programs. We introduce you to our latest committee members, members with diverse skills; they are the engine's that drive your alumni.

The Alumni Council knows that because of the efforts of our phenomenal subcommittee members your council is fast approaching as a recognised force for change; a champion for gender diversity and diversity across the cultural spectrum. A leader in effecting updates within the current resources curriculum and supporting a change in the way we teach in our schools and university.

2018 was a year of growth, change and transition. We welcomed Oil and Gas and the return of Mineral Economics along with Geophysics, and still keeping our geologists, surveyors and metallurgists within the alumni.

Bentley responsible for engaging with the newest WASM-MECE members, is now chaired by David Harwood, a graduate of chemical engineering, General Manager Process Safety at Woodside Energy. His team are the following; Professor Colin Roberts Director of Salternas Ltd, Rachel Wood Geophysicist at Woodside, Jenny Pope Director of Integral Sustainability, Maria Forsyth Metallurgist studying Professor Chris Elders, Petroleum & Geology, Associate Professor Bryan Maybee, department of Mineral & Energy Economics.

The last of our commitment to you as members, NO MORE MEMBERSHIP. On December 1 2018 all our graduates automatically become a part of the global WASMA family. It is our hope that this will inspire you to engage in the alumni and volunteer your time to our subcommittees...

Lock in July 17 for the annual Mining Innovation and Collaboration Event. 'The Science Of Data and the Impact On the Resource Sector'.

This year's key speaker's is are Dr Liz Dallimore, Director of WA's newest Data and Science Hub, situated at Curtin University and Mr Joe Dwyer, CEO of HiSeis.

You can register on Facebook https://www.facebook.com/ events/281197809480565/

I look forward to seeing you at one of our many events scheduled in 2019.

RALEIGH FINLAYSON

MD Saracen Minerals, WASM Alumni President (May 2019)

SETTING THE STANDARD

Industry-leading graduate and trainee programs in:

- Engineering
- IT
- Safety
- HR

Be a part of the future of underground mining. PYBAR.COM.AU/CAREERS



SAFETY SERVICE RESPECT RESULTS



TAG Financial Group

TAG use the latest mobile technology to understand visually where you're headed financially. We help you understand your goals and create a tailored plan, with ongoing support, to assist you in achieving these.





9367 1227

taggroup.com.au

Enriching your life.



ALEX ATKINS

WHY DOES THE RESOURCE SECTOR NEED A CHARTER 4 CHANGE

ALEX ATKINS
HAS A PURPOSE
IN LIFE; TO
MAKE MINING
BETTER.
A GRADUATE
OF WASM AND
A MEMBER OF
THE ALUMNI ALEX
ARE SOCIAL JUST
SUSTAINABILITY



THE ALUMNI ALEX'S VALUES ARE SOCIAL JUSTICE AND SUSTAINABILITY (SOCIAL LICENSE TO OPERATE -SLTO).

She loves the ESG (Environmental, Social and Governance) movement & the proxy advisors who are pushing for greater female representation in leadership (C-suite & Boards). Allowing boards to make the decisions which reflect the best solution for the broader community (of which is 50% women). Alex is passionate about helping STEM women and

mining mums to be retained and developed by the mining industry. To date encouraging women back into the sector has received little support and no-one advocating for them.

Alex stands up for what she believes in. She loves the digital transformation of mining because it should be an enabler for women & the "disabled" to participate and contribute to the mining sector. Done right, the digital transformation of mining will make mining safer, create more value and share more value - which re-earns it's SLTO. Alex can contribute to the digital transformation of mining because of her broad multi-disciplinary mining experience and expertise across the full value chain of mining.

WHAT IS A CHARTER 4 CHANGE?

The Australian Federal government has identified the need for more women in Stem and initiated the Women in STEM decadal plan (soundcloud.com).

C4C is a business model Alex has developed which offers the Resource Sector a solution to retaining women to remain in the industry.

Alex believes experienced STEM mining women (many are mums, marginalised to consulting roles - out of sight & out of mind of industry leaders) should provide domain expert services to Board Audit & Risk Committees and Internal Audit in a flexible

way aligned with their values. This would Include women in company's working part-time.

Female Mining Graduates (and other minorities) have historically not been included in the networks and opportunity building which the male members benefit from.

C4C enables the sector, particularly low to mid-tier mining companies, to understand the importance of inclusive diversity for optimal performance and to be proactive within their own companies.

There is a definite need to create industry pull for better ESG governance and retention of mining STEM women which will most likely come from Proxy Advisors, ESG groups and Ethical Investors (i.e. via the shareholders).

If you would like more information on Charter 4 Change please contact Alex via admin@wasma.com.au

Alex Atkins holds 2 x BEng Degrees from the University of Queensland and WA School of Mines qualifying her as a Mining Engineer, Geotechnical Engineer & Geologist. She holds First Class Mine Manager's Certificates for WA & Queensland, has an MBA(Finance), is a graduate of AICD and Chartered Professional Fellow of The AusIMM.

Alex has 25+ years' experience through the full mining value chain in roles that find, design & run mines, regulate mines & in the Big4's auditing mining companies.

Alex is a Non-executive Director of Ausdrill Ltd (ASX:ASL) & Founder of her own consultancy. ■



VALE DR ALWYNNE





14 DECEMBER 1922 – 20 NOVEMBER 2018









A twist of fate led Dr Alwynne Pegler into the mining industry, leading to a highly-regarded career which included being principal of the WA School of Mines between 1969-1975.

s his second wife Dianne explained from their home in Tasmania, Dr Pegler had two choices after WWII and retiring from the RAAF as a trained pilot and instrument flying instructor: he could join a newspaper as a photographer or enrol in mining at WASM.

"To make this decision he flipped a coin, heads or tails ... the result was heads for mining," Mrs Pegler said.

After graduating, Alwynne became senior mine surveyor of South Kalgurli Consolidated.

He then worked in Northern Rhodesia before accepting a job in Canada as ventilation and safety engineer for Canadian Metals Exploration at Elliot Lake in Ontario.

While in Canada, Alwynne achieved his Masters in mining engineering at Queens University,

then obtained his doctorate degree to Dr Pegler's high academic in 1962 and became associate professor at the university.

In 1969, the year WASM merged with the WA Institute of Technology (now Curtin University), he agreed to return as head of the school.

"Having been a matureage student himself while working and raising a family, he understood all the hard work the students did to obtain their degrees," Mrs Pegler said.

An article about Dr Pegler in the Business Week in Western Australia from 1972 referred to his hopes to introduce a "sandwich study scheme" the following year, that would allow part-time students to study fulltime at WASM for 18 weeks then work full-time for the rest of the year without study commitments.

and professional affiliations, including an associate membership of the Institution of Mining and Metallurgy (England) Chartered Engineer.

"Those who knew him in his early days on the Eastern Goldfields have welcomed the return of one possessed of so much energy and drive, and who has already become associated with a wide range of civic and educational activities," the article stated.

"More particularly, profound faith in the mining industry is a constant inspiration to those whose confidence in its future may, at times, be shaken."

WASM's residence Agricola College, opened during Dr Pegler's tenure.

He later became an associate article also referred professor at Curtin from 1987 until his retirement, and was also a visiting lecturer and consultant for Cheng Kung University in Taiwan over a period of years.

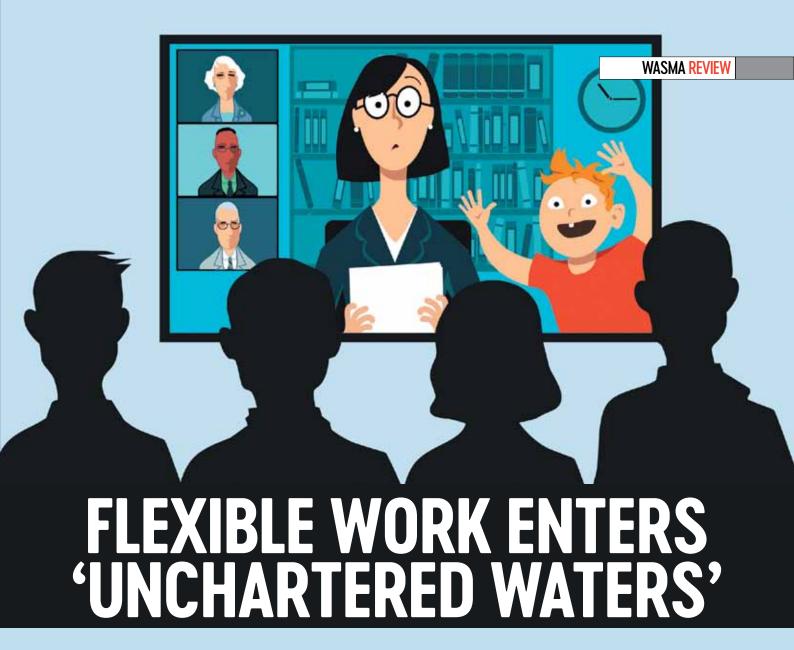
Dr Pegler returned to WASM in 2004 to receive a bronze plaque from then-head Professor Peter Lilley, commemorating 50 years since his graduation.

He passed away in November, aged 95.

Among the condolences that followed, he was described as a true gentleman and scholar.

"My dear departed husband has been a marvellous example to all other mining graduates of what you can achieve by following your career, improving conditions and working hard," Mrs Pegler said.

father He was to Jeff Vivienne, (deceased), Grant and Lee and is also survived by a number of grandchildren and great-grandchildren.



ith the labour market tightening as large-scale projects get the go-ahead across Australia, the resources sector is in a prime position to capitalise on new rules regarding flexible work entitlements.

While the industry already has many examples of successfullyflexible negotiated working arrangements, the changes that came into effect on December 1 have broadened the scope of who can request them and how companies must respond.

As corporate adviser and WASMA flexible work committee member Conrad Liveris puts it: "Such a distinct change means that we are, essentially, in unchartered waters."

The changes stem from a September decision by the Fair Work Commission, whose Full Bench agreed there was

"a significant unmet employee for flexible working arrangements".

It said about one quarter of employees were not happy with their working arrangements but had not requested a change.

Providing employees with flexible working access to arrangements could provide benefits to both employees and employers, the FWC pointed out.

WASM Alumni flexible work committee member and Cube Consulting principal mining engineer Adrian Ralph agrees. He said the birth of their son 10 years ago was his first catalyst for seeking flexible work, with a 90-minute commute to site at the time, plus studying for his Masters in Mineral Economics making maintaining his health, work and home commitments a serious challenge.

Following a change in company ownership and a period without meaningful work, Mr Ralph set up and ran his own consultancy for about five years, appreciating the flexibility that offered - a flexibility he now also enjoys at Cube.

"Choosing a more sustainable and balanced path is better for employees, and unequivocally better for employers," he said.

Fellow flexible work committee member, WASM Alumni mining engineer and Advanced Mining Production Systems business development manager Alicia Bunting said mining companies benefited from flexible working arrangements.

"The mining industry is becoming more mindful of the economic and cultural benefits that result from having a diverse range of flexible work available to employees, whilst delivering access to a greater pool of skills and workers," she said.

NEW STATE OF PLAY

Under the changes, modern awards now include new rules about flexible work entitlements, meaning people with parental or carer responsibilities, a disability, who are aged 55 or older or are experiencing domestic violence can request flexible working arrangements.

Casuals can also make a request if they've been employed on a regular basis for at least 12 months.

Employers must first discuss the request, "to genuinely try to reach an agreement on a change in working arrangements".

They must also take into consideration the employee's needs, consequences for the employee if the changes aren't



made and any reasonable business grounds for refusing the request.

"This is a pretty big change for organisations, because previously they could respond negatively and say it was on 'business needs'," Mr Liveris noted.

Requests can only be refused on reasonable business grounds, Fair Work Ombudsman spokesperson explained.

Reasonable business grounds can include that the arrangements would be too costly, other employees working arrangements couldn't be changed accommodate the request, or that the request would result in a "significant loss of productivity".

Employers must provide a written response within 21 days and include the reasons if the request is refused.

SUCCESS IN THE SECTOR

"If you want a flexible work arrangement, you need to ask for it rather than wait for it to be offered," Ms Bunting advised.

The mother of two had looked to return to mining after being out of the industry for 3.5 years, feeling torn between work and raising her young children, but found zero part-time positions

She sought advice from female leaders in the sector and was encouraged to apply for the positions she wanted.

"It wasn't long until I was asked by two different companies to interview for a potential position. Both wanted someone full time!" she said, adding that one was a multinational entity and the other a small consulting firm.

"I took a big breath, put on my big girl pants and met both employers," she continued.

"To my shock, both managers were happy and willing to talk through the type of flexibility I was looking for, ways they have seen work in the past both within their organisations and externally."

Ms Bunting said her employer had 36% female representation in professional roles and all employees had input into how their job was structured.

"Our flexible approach has created a diverse culture that is inclusive, productive and delivered greater innovation and increased profitability," she said.

Mr Ralph did not hesitate to point out the elephant in the

"It is no secret that there is ongoing stigma around flexible work for guys," he said.

But he said the benefits included being able to engage in other challenges, or in his case be involved in the local and school communities and look after his own well-being.

"Most mining professionals would acknowledge that mining offers plenty of opportunities to work hard," he said.

"While it can be a great challenge and very rewarding, I have seen many extremely capable friends and colleagues work to the point of serious illness.

"At the very least, I have seen friends walk away from a job just to receive time out and get their lives back in balance."

He said there was often a perceived risk that staff on flexible arrangements would not carry their weight in terms workload, but generally speaking, organisations with a focus on set work times and days tended to have less trust and less empowerment of employees.

"I would much rather be judged (or in my case paid) based on my achievements than on the number of hours I sit at my desk, where my desk is located, or when those hours might be in the day or night," he said.

Two proactive steps employers

Mr Liveris important managers informed about the new rules surrounding requests for flexible work arrangements.

"The knee-jerk 'no' just won't cut it," he said, saying employers now had to have a genuine and inquisitorial conversation with the worker making the request.

Secondly, he said it was important for employers to firmly understand when they needed

"When drilling starts, at review points and shift changes etc - (assuming) you need staff and managers at those times then make it clear that those are, effectively, non-negotiable times so that staff know clearly the responsibilities," Mr Liveris said.

"What I mean by that, is that if an organisation puts in clear, and limited, red lines that respect the individual and the operation alike, then they will have the trust of their staff to make reasonable requests.

"Underpinning this new process, as it is rolled out more widely across the labour market, organisations and managers must have a clear understanding of their operation and take a much more consultative approach to their workforce."

The FWC has proposed reviewing the changes in June 2021 and revisiting whether the group of employees entitled to make a request for flexible working arrangements should be expanded.

You can find more information at www.fairwork.gov.au and hear discussions in the latest WASM Alumni podcasts. ■



ADRIAN RALPH

PRINCIPAL

Why did you seek flexible work arrangements?

The birth of our son 10 12 hours door to door. At this Masters in Mineral Economics as well as playing touch rugby and water polo. When our son help out at home more. The pull between maintaining my own health, work and home commitments was a serious challenge which tested me and

The workplace I was in was particularly inflexible, mostly due to the substantial travel commitment each day. hindsight, an ability to fulfil

some functions of my role from home would have made a huge difference.

A few years later, I was in a situation where I was working for a great company, in a job with lots of exciting challenges. Almost overnight, the company was taken over. This necessitated a lengthy period of around six months whereby we could not do any meaningful work on our projects due to a lack of budget. We needed to stay employed in order to receive our entitlements once the takeover took effect. Being in an office day in and day out without meaningful work is one of the biggest challenges I have faced. Often, you need to experience something to figure out it is what you don't want to do. I decided pretty quickly that having no challenge in my workplace was a dead end to be avoided at all costs.

After several months, whilst still employed, I took unpaid leave to do some consulting gigs - not for financial gain, but to keep learning, and to keep engaged. Following that, I decided I had enough skills to offer to start my own consulting business. I was very fortunate to have friends and former colleagues show faith in me and provide work quite quickly. This seemed like a good solution as I could do the work I enjoyed, see new sites and projects, whilst having flexibility and maintaining a similar income to what I was previously on. This continued for the next 5 years, during which time my daughter was born.

How did your employer respond?

Originally I was selfemployed so my "boss" pretty positive about it.

I was then approached by Cube Consulting to join their firm. Cube already had directors and others within the office working flexible days and hours - walking the talk. It was important to me that the company demonstrated their commitment to flexibility, and that it was entrenched in the culture of the business.

What are the benefits to you of flexible work?

Number one is that you can engage in other challenges, or engage in the community via volunteer opportunities. While self-employed, my wife and I decided to begin a start-up Not for Profit to assist in social support for new mums, based on our earlier experience. This taught me a lot about how other sectors of our society operate, and about how much great stuff is done by amazing volunteer groups and individuals within our communities.

Being in an executive role (albeit voluntarily), I had to have a certain amount of ability to engage with our stakeholders during normal office hours. Running an entity focussed on social support rammed home to me the benefits of flexible work to be there for family and friends when needed. Of course, every work and business has busy times when the work must come first. However for the majority of the time, the freedom to set your own priorities allows you to own the challenges, manage expectations and be accountable for delivering the solutions in a set timeframe. I do not regret a day of this time.

It is important to me to be involved in the local community and in our school community. I am currently on the committee of The Fathering Project at my son's school, which is a fantastic initiative that I would recommend to any dad or father figure. I really enjoy being available for activities at school, and for dropoffs and pick-ups from day care for my daughter when I can.

Flexible work allows me to manage my own wellbeing. It is important to me to exercise regularly. I enjoy setting personal fitness goals- being part of a team for the Rottnest Channel Swim and participating in the Avon Descent as a two-man team have been highlights. Colleague(s) and I currently go for a run at lunch when we can, up to three times per week.

Most mining professionals would acknowledge that mining offers plenty of opportunities to work hard. While it can be a great challenge and very rewarding, I have seen many extremely capable friends and colleagues work to the point of serious illness. At the very least, I have seen friends walk away from a job just to receive time out and get their lives back in balance. Choosing a more sustainable and balanced path is better for employees, and unequivocally better for employers.

I was exceptionally lucky to spend the first year of my daughter's life working from home on a feasibility study, which was an incredible gift to me.

Are there any pitfalls?

Absolutely. One down side of gig economy type flexible work is that if there is no work available, your income is affected (or gone). Another is that there are fewer roles to choose from.

It is no secret that there is ongoing stigma around flexible work for guys. If you seek out flexible work, there can often be a perceived risk (by employers) that you will not carry your weight with respect to workload. While it is true that you may not always be available if you have other commitments, (such as a carer or sole parent), generally speaking I have found that in organisations where the focus is on set work times and days, there is less trust and less empowerment of the employee, and less ownership. I would much rather be judged (or in my case paid) based on my achievements than on the number of hours I sit at my desk, where my desk is located, or when those hours might be in the day or night.

I find that the benefits far out way these pitfalls for me.

What has been your experience with seeking flexible work in the past?

Work options are absolutely more limited if you are seeking flexibility. There are also certain roles where introducing flexibility is a challenge. I love operational

management roles, and have had some success in being flexible as a project manager, where you can put in place a strong team and manage the skills mix to ensure the job progresses even if you are not on site. There is no doubt though that at critical times, this type of work needs to take priority. The challenge is to work out when those times are critical, and when flexibility is ok.

What changes are you seeing in the industry around flexible work?

I think that consulting in particular is adapting to account for the needs of individuals. The biggest change needed overall is to have leaders set the culture that they want and lead by example. I am beginning to see amongst my friends (both male and female) who are at a similar stage of life a desire for flexibility in their future roles.

What advice would you give others who are seeking more flexible work arrangements?

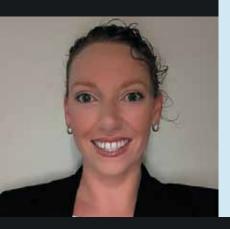
Certainly to think ahead and develop skills that help to keep your options open. If you have a broad base of skills, you can be more adaptable to a greater variety of roles, and therefore have a broader choice of employers and employment types.

For employees - make conscious choices about your (career) goals for your current and future stages of your life (and that of your family). Don't be afraid to do things differently to the previous generation.

Is there anything else you'd like to add?

To employers, empower your people, treat them with respect and you will attract and retain the high performing employees that make your business desirable for all of your stakeholders - including investors and clients.

Cultural change takes time, but nothing worthwhile comes easy. Look after yourself, and you will be in a better position to be successful in your work and to look after the people you love. ■



ALICIA BUNTING

BUSINESS DEVELOPMENT MANAGER ADVANCED MINING PRODUCTION SYSTEMS

BACKGROUND

I LEFT MY ROLE WORKING AS A PRODUCTION MINING ENGINEER IN DECEMBER 2012 WHEN I WAS 9 MONTHS PREGNANT. IT WAS THE START OF THE MINING DOWNTURN AND I WAS GIVEN A REDUNDANCY. MY FIRST CHILD WAS BORN JANUARY 5, 2013, THEN 18 MONTHS LATER I GAVE BIRTH TO MY SECOND CHILD. I DO LIKE EFFICIENCY.

Why did you seek flexible work arrangements?

Fast forward to 2016, and I had been out of the mining game for 3.5 years. I felt if I didn't return to work now, my university studies and experience would be seen as irrelevant. But I still felt torn between work and raising my young children.

I decided to try to find a parttime position that even remotely related to the mining industry. My job search within the mining and resources industry showed up ZERO positions available, Australia-wide! I wasn't ready to return to full-time work and didn't know how my children or I would cope.

I needed guidance, so I sought out the advice of several female leaders within the mining industry. This was the advice:

- If you don't ask for it, you will never get it.
- I was encouraged to apply for the positions I wanted, regardless of it being advertised as a full-time role.
- You need to have the conversation early on, and explain clearly what flexible work you would like and the value you can bring to the business.
- Not all companies will be forward thinking and willing to change.

So I starting applying for roles. It wasn't long until I was asked by two different companies to interview for a potential position. Both wanted someone full time!

How did your employer respond?

The positions were with two very different companies.

- The first being a huge multinational entity
- Second, a small consulting

I took a big breath, put on my big girl pants and met both employers. I was sure they would say no, but I summoned the courage and explained that I only wanted to return back to work 3 days a week. To my shock, both managers were happy and willing to talk through the type of flexibility I was looking for, ways they have seen work in the past both within their organisations and externally.

A week later I was offered both positions with the flexibility for 3 days a week.

What are the benefits to you of flexible work?

Since returning to work I have also become a single mother, meaning that having access to flexibility is vital to manage both raising two children and still being financially independent.

Through my current employer, we been able to grow the company by creating new roles with the option for flexibility. This has included pathways for parents with young children, to return to the workforce.

Our flexible approach has created a diverse culture that is inclusive, productive and delivered greater increased innovation profitability. Our company has female representation in professional roles and all employees having input into how their job is structured.

Are there any pitfalls? is important that companies seek expert advice when developing a flexible work place policy to ensure the

intended benefits are felt by both the employee and employer.

There may be additional investment required restructuring work place practices that could be a drawback. However, a company should focus on the long-term return on investment of accessing a greater employment market, a chance to become more efficient and productive plus the studies find that flexible work practices also deliver more loyal, happier employees.

What changes are you seeing in the industry around flexible work?

According to the Australian Government Workplace Gender Equality Agency report, just 18.5% of mining employers have a flexible working arrangements strategy in place in 2018 which is still lower than the national average of 26.7%. The industry has taken some significant steps in the past 3 years to improve this percentage from 2015 where a dismal 3.9% of the Australian mining industry had a flexible working arrangements strategy.

are Companies beginning to rethink roles within their companies to enable employees to access flexible employment solutions. The mining industry is becoming more mindful of the economic and cultural benefits that result from having a diverse range of flexible work available to employees whilst delivering access to a greater pool of skills and workers.

hat advice would vou give others who are seeking more flexible work arrangements?

If you want a flexible work arrangement, you need to ask for it rather than wait for it to be offered. Ensure you have thought about how any proposed changes may impact the business and how they may be managed or mitigated.

Flexible work, although significantly important to attract, and retain women within the workforce, is applicable to all employees.



The program, set to reach up to 6000 students this year, aims to promote the use of digital technology and develop the skills required by emerging STEM jobs.

Fire Tech Managing Director Andrea Conte says there is a need to educate students on the importance of a career in STEM, especially with the steady decline of students joining and graduating from STEM related disciplines.

"We see an opportunity to encourage future generations understand why STEM is crucial to their future. According to a recent Foundation for Young Australians report, 75% of all future work roles will require STEM skills. Connecting students to these career opportunities is very important"

Students will to the use of robotics and drones, Fire Tech's new program will aim bridge the gap between their interest in STEM+ and its real-world applications.

"With industries increasingly adopting robotics and drone technology, it is vital that the workforce of the future is well versed in these technical skills and where they can be applied."

The program has been created in collaboration between RUC, WA Mining Club and Platform Communications.

"Support from the funding partners RUC, WA Mining Club and Platform Communications allows Fire Tech to offer free STEM sessions to low and mid socioeconomic status schools," said Conte.

"We will facilitate two classes of Year 9 students per school, up to a maximum of 50 schools for the 2019 school year, with two sessions taught in the year," explains Mr Conte. "We aim to reach 3000 to 6000 students this year, and 20000 by the end of 2020."

BRINGING PEOPLE ALONG THE JOURNEY

SMS was founded by Danny Sweeney in 2000 as Sweeney Mechanical Services, a repairs and machinery sales business. In 2007, it evolved to SMS Rental with the purchase of its first dozer and today with the inclusion of open pit contract mining, the company has transitioned to SMS Mining Services.

Since its inception, SMS has achieved year on year growth but with that has come challenges. In 2013 for example, Navigator Resources went into administration causing a significant loss in cash flow for SMS. As the company rebuilt, not one person left. The team stuck together, whilst clients and creditors stood by the business.

By 2015, SMS had a regional workshop and office facility in Port Hedland, opened its Kalgoorlie workshop facility and moved into a larger head office in Welshpool. Today it has a workforce of over 700 people and an order book over \$1 billion. In October this year, it announced a merger with the Rivet Group, a nationwide provider of transport and logistics solutions, to create a diversified and expanded service offering to the mining, LPG and bulk haulage industries.

PEOPLE AND CULTURE

SMS has achieved its growth by being responsive to market opportunities, offering a flexible and collaborative approach to contracts and projects and by consistently meeting or exceeding client expectations. Critical to this is people and culture.

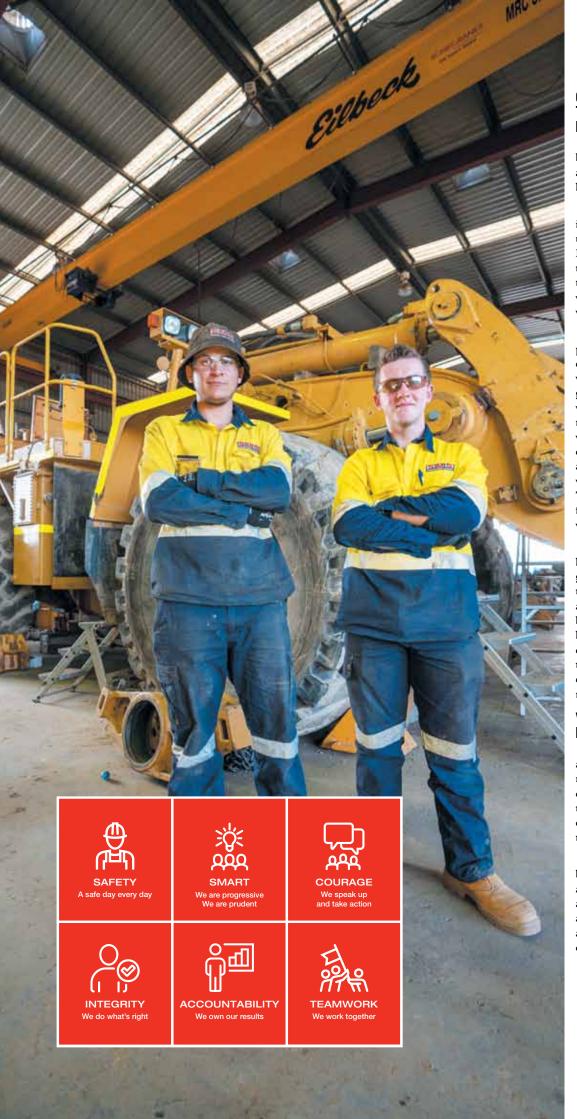
SMS's growth has come from hard work, not only from the leadership team but each and every one of their employees, along with the support of their clients and suppliers. As a contractor, SMS have not only delivered on project objectives but demonstrate value through

continuous improvement and innovation. The company makes it clear they do this through their people.

SMS has in place a number of programs. The company takes pride in providing a unique apprenticeship program to attract bright talent and future leaders. Its Apprenticeship Program differs from others in that apprentices are exposed to a wide variety of equipment, site locations and ongoing mentoring from management. All apprentices have the opportunity to start as a Trade Assistant in the Kalgoorlie Workshop before beginning their TAFE studies and apprenticeship program. This gives incoming apprentices the opportunity 'taste test' a variety of trades before committing to study. This shone through when third year Apprentice, Hayden Hunter, won the Goldfields 2018 Apprentice of the Year.

Another unique program in the recruitment of 'greenies' – an endearing reference to people who have never worked at a mine site or are inexperienced in operating of heavy earthmoving equipment. SMS's 'Development Training' program will see men and women join the company as a trainee truck driver, for example. After an induction, they head to site for on the job training. What's really different is the company's attitude. The site crews genuinely get behind each person and provide support and encouragement as they've all been there before. It's this sort of culture that has enabled SMS to grow.





COMMUNICATION IS TWO WAY – IT INCLUDES LISTENING

SMS is a company that believes in communication. It has a culture of approachability and learning.

The company is constantly improving. In 2018 SMS undertook an independent Employee Survey to assess how their staff felt about the company, to learn more about what values were important to them and what SMS could do better.

For SMS, the result was very positive. 74% of employees described SMS in a positive way. They saw the company as growing, a good company and with a good culture. Safety also rated well. They also thought what the company did best was client relations, being adaptable and professional and delivering well in pricing, value and quality. They felt that the company cared for its employees. But they also wanted more communications.

As a smaller company, the leadership team could personally get to sites regularly. Today, this team has not only remained a constant but continues to be hands on. However they have supplemented personal communications with emails to all staff, social media, family days and soon to follow, internal newsletters and videos.

VALUES THAT GUIDE BEHAVIOUR

SMS shaped its company values around what their employees resonated with. Recently, the company realigned its values to include accountability, courage, SMART, integrity, teamwork and safety.

SMS's objective has not only been in getting good people and enough of them but training and supporting them. It's always a challenge but it's a multi-faceted approach which has a cascading effect.





Curtin University

A global university ranked among the best in the world.



Top 1 per cent of universities in the world.

(Academic Ranking of World Universities 2018)

#2
Globally
in Mineral
and Mining
Engineering.

(QS World University Rankings by Subject 2019)



in Australia in Chemical Engineering

(Shanghai Global Ranking of Academic Subjects 2018)



Range of Bachelor Engineering Degrees:

- Mining Engineering
- Metallurgical Engineering
- Chemical Engineering
- Petroleum Engineering

Range of Masters Engineering Degrees:

- Mineral and Energy Economics
- Mining, Metallurgical, Chemical, Subsea and Petroleum Engineering

Make tomorrow better.

curtin.edu/mining

CRICOS Provider Code 003013 3846SE



EVENTS CALENDAR JULY TO NOVEMBER 2019

JULY 10

Resource Connect Charter for Change Alex Atkins 5pm — 6.30pm MayFair Lane West Perth

JULY 17

WASMA MIC Talk (Mining, Innovation Collaboration)
Dr Liz Dallimore, Director of WA Data Science Innovation
Hub and Joe Dwyer CEO HiSeis @ Curtin University
5.30pm — 8.pm St Georges Terrace Perth

JULY 21

Open Day Curtin University
10am — 3pm Bentley Kent Street

AUGUST 6

WASMA and WIMWA Diggers and Dealers Sundowner 6pm — 8.30pm Graduates Hall McDonald Street, Kalgoorlie

AUGUST 30

WA School of Mines Open Day 10am — 7pm - WASM Campus, Kalgoorlie

SEPTEMBER 11

Resource Connect Flexible Work
5pm — 6.30pm May Fair Lane West Perth

SEPTEMBER 18

WASMA & Curtin Q&A: Future of Education

— Delivery and Learning in the 21st century
5.30pm — 8pm — 137 St Georges Tce

OCTOBER 15

Seniors Night @ The Celtic Club 4pm — 6pm

OCTOBER 25

WASMA & WIMWA Family Night @ Scitech 5pm — 8pm

NOVEMBER 9

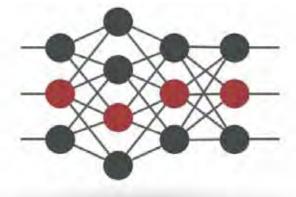
WASMA Resources Ball — Welcome to Oil and Gas Perth 6pm — no location has been confirmed

NOVEMBER 13

Resource Connect Curriculum for the Resource Industry 5pm — 6.3pm MayFair Lane West Perth



PRESENTATION Alex Atkins Charter 4 Change



WA School of Mines Alumni - Resource Connect

Date: 10 July 2019 Address: Mayfair Lane 72 Outram Street, West Perth

Time: 5pm - 6.30pm
Register: www.eventbrite.com.au

Comitibus

Da Dextram

WASMA EVENTS



GRADUATION DINNER KALGOORLIE













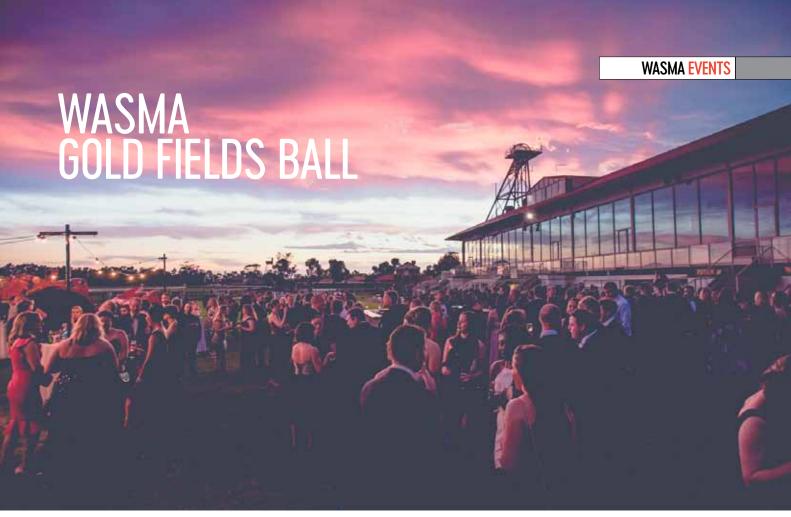


GRADUATION LUNCH RAC ARENA



KALGOORLIE SUNDOWNER













FOCUS ON MINING CAMPS



We are asked the alumni to remind us how good are these camps.

CHRISTIAN PRICE Was lucky to attend two Focus on Mining camps 1997 and 1998. Will have to hunt down some photos. Experiencing WASM and Kalgoorlie is 100% the reason I chose mining as a career.

JOHN BATTISTA Waaaaay back in 1983 - me and Rob Brierley. I think Steve Norregaard was also on the same trip. And also Gil Savy's little sister but I can't remember her name.

HOLLY KIELY I went to the focus in mining camp in 2010, I had a fantastic time

KATIE MANNS I went to the focus on mining camp in 2007 it was brilliant and definitely part of why I went to WASM Kalgoorlie

MARK KNEDLER I did the ASMV in 2003 not sure that's the same trip

BRODIE RYAN EDWARDS

I went on one

BOE HELM Women in Mining Camp, for Year 10's: 1995. It was brilliant

REBECCA O'DEA I went on a Focus on Mining camp. It was great fun and definitely got me started on becoming a geo

•••••

CLINT MOXHAM Focus on Mining tour - 1994? Had a great time, definitely decided that Kalgoorlie and mining was the scene for me. Visited the Superpit, Victor-Long Shaft, Kaltails and the Nickel smelter. Actually, think I may have studied a bit harder to ensure I got to WASM!

STEVE NORREGAARD 1982. Along with Robert Brierley Paul Kopetka, Randall Swick amongst others. Got me wanting to get into mining. Excellent initiative

.......

JAYDE WEBB Monika John Christina Fahl Nicole Tucker Mikaela King Jenkins

KELLY ARCARO Ex ASMV attendee and chaperone here.

RICHARD PRICE Yeah, focus on mining around 1993. Dunno if I'd have any photos...

ALEX ATKINS Sept 1985. Photo by the late & great Carl Adams.

AMANDA HAAS Lovitt Mike 1978

DAVE MCGOWAN Yes I was a Focus on Mining student. It was a long time ago, it convinced me Kalgoorlie was the place to study and that Mining Engineering would be better than Metallurgy. I think nearly a third of those that were on the Focus on Mining fronted up the next year. Not all completed their course, some took a while to finish and most have carved out very successful careers.

GEMMA MURPHY Nearly 27 years, 22 mines, 4 countries and 3 kids later, I still have the certificate! Does the love of numbers give me away as a surveyor??

DAVID FLANAGAN Yes, I did. After the camp there was only one career for me!

•••••

KEN BRINSDEN Yep - 1988-ish, and it definitely helped me decide to go there.

OUR GRADS
ALL AGREE THE
CAMPS ARE THE
BEST WAY TO
SELL WASM-MECE
AND KALGOORLIE
CAMPUS.

If you or your company, employer, would like to support a camp or contribute in any way to help us ensure there are camps every year, please email Tanya Chamber, Business Manager of WASM-MECE T.Chambers@curtin.edu.au



MS JADE SINGLETON – SOUTH32, the alumni's treasurer, is now the Chair of the WASMA Outreach Committee. The program is being launched across the state of WA. Jade's committee are Gemma Murphy - Mine Surveyplus, Jill Irwin - ENETCH, Raymond Wattenhofer - Resources and Energy Group, Trent Nayler - IGO, Jess Laing - Saracen Minerals, and from Curtin Tanya Chambers and Dimple Quyn.

The program has 45 alumni presenters ready to tackle 35 schools. Central TAFE in Kalgoorlie has generously offered to cover the costs of Allison Golsby, Alumni member, to present to five schools in the Goldfields. The program is sponsored by Barminco, XYLEM and Northern Star Resources. If you wish to get involved email outreach@wasma.com.au

MEMBERSNAPSHOT

MR BILL BEAMENT, Executive Chairman of Northern Star Resources, past President of the Alumni for five years, received an Honorary **Doctorate for Engineering from Curtin** University for his distinguished service to the Mining Industry and to Mining Education through leadership, advocacy and influence.

THE KEITH PARRY FUND was relaunched in 2018 at the annual ball. Since then it has donated \$40,000.00 to WASM-MECE for new equipment and a further \$100,000.00 to upgrade the Graduates Hall in Kalgoorlie. If you would like more info please contact Neil Warburton neil.warb@bigpond.com

MR WARWICK JONES - BC Iron. Alumni and member of the WASMA council, runs the WASMA Mentoring Program. Along with Jayde Webb from Byrnecut, Suanlee Heng BHP, Mick Radi and Aaron Rankin from Barminco and Chris Mata AMPS. The committee are supported by Anglogold Ashanti, Epiroc, and RMP Global. With the latest software in place, the program

is matching over 300 mentees. Their Chair is Stuart Tonkin Northern Star Resources. Contact Warwick mentoring@wasma.com.au

MS ALICIA BUNTING has taken on the task of the Flexible Work Program. The group are experts in the current legislation and are here to assist low to mid-tier companies in understanding the benefits of offering employee's flexibility in the workplace.

THE FLEXIBLE WORK COMMITTEE **CONSISTS OF:** Alicia Bunting Chair - AMPS, Emma Scotney - Hopgood Ganim, Brett Smith -PwC, Ngaire McDiamid - Aspermont Media, Adrian Ralph - CUBE Consulting.

FULLBRIGHT SCHOLARSHIPS:

Atmospheric physics expert Professor Richard Sonnenfeld, from New Mexico Tech, and respected mining and metallurgical engineering academic Professor George Danko, from the University of Nevada, will be based at WASM-MECE Kalgoorlie and Perth campuses from January to June 2020 under the Fulbright Program. Protecting industrial infrastructure from lightning strikes and ensuring mine safety will be the aim of two leading US scientists who have been awarded prestigious scholarships to conduct research at Curtin University's Western Australian School of Mines: Minerals, Energy and Chemical Engineering next year.

MR KYLE DÉSOUZA, Senior Mine Engineer at Saracen Minerals, as opened Charlie's Shack in Lombok http://www.charliesshack.com/ourrooms/ If you are in need of a place to chill out then Charlies Shack is the place for you.

MR BRENDAN PARKER, Director of AMPS, is passionate about ensuring the right education is in place for the future of Resources Sector. So much so his own company conducts training courses. Check out the latest courses advancedminingproduction.com

UPDATING THE CURRICULUM: If you graduated from WASM-Minerals, Energy and Chemical Engineering in the last five years, you can get involved and have your say on the curriculum. Curtin University initiated a survey of WASM graduates who completed the mining engineering major in the last five years. The survey asks graduates about their

perceptions of the value of different components of the curriculum, and for ideas on how the programme can be improved. Findings from the study will be used to help inform a curriculum renewal exercise that is currently under way and in which WASMA is participating

By now, you should have received an email from the University inviting you to participate in the survey and providing an e-link. If you have not already done so, we urge you to go-on line and complete the survey. The address is: planning.curtin.edu.au

JOANNE ABRAHAMS, WASMA MEMBER, is the Operations Manager for the Western Australian Stolen Generation Corporation. Joanne is a metallurgist. yokai.com.au

KEITH ROSS, WASMA MEMBER,

Mining Engineer, is the Chair of the Indigenous Students Action Group, working with Odwyn Jones in collaboration with the Clontarf Foundation. The group organise Mining programs for the students. A chance to visit Mine sites and tour WASM-MECE in Kalgoorlie and encourage to take up a career in the Resource Sector.

WA SCHOOL OF MINES ALUMNI OUTREACH PROGRAM



The Mining Sector has the strongest growth in employment.



The WA School of Mines - Minerals, Energy and Chemical Engineering

Mining Engineering, Metallurgy, Geophysics, Chemical Engineering, Petroleumn Engineering, Mineral Economics.

Geology and Surveying.



Study Opportunities

You can study in Kalgoorlie or Perth.



Today more mining careers can be found within the innovative field

Big Data, 3D Mapping, Mechatronics, automation.



Use your degree and mine in space

WASMA - Minerals, Energy and Chemical Engineering Degrees are transferrable to multiply industries - Over your working career spam there are many options.

Average WASM Graduate will have 15 employers in 5 industry sectors.

Mining engineers are the top of the employability scale 92.3% in Australia and across the globe



Mining graduates earn above the average wages of any other career professional. Maximum average \$125,000.00 to the sky is the

70%

of future jobs will be STEM related One of the largest employers of STEM related skills "The Resource Sector"

WASMA Barminco





wasma.com.au

12

Mining Engineering

THINGS FIRST HOME BUYERS NEED TO KNOW

Before you decide to purchase your first property there are a number of things to consider, including your current personal circumstances and financial status.

THINK ABOUT WHY YOU WANT TO BUY A HOME

Do you want to live in it or will it be an investment property? This can help determine the kind of loan you apply for and home you buy, depending on your short and long-term plans.

RESEARCH POTENTIAL PROPERTIES AND LOANS

While some lenders will offer loans if you have saved less than the usual 20 per cent deposit, being able to show a record of good saving habits will aid in getting your loan approved. In the current market it makes a lot of sense to know exactly what you budget is. How much you can borrow will determine how much you can spend on your first home.

Knowing the market is crucial, so do some research on the areas you are targeting, check out recent sales, as well as price trends in the area. Once you are aware of what you are looking for and the approximate price, the next step is saving a deposit. As a guide to how much you need to save a great starting point is 5% of the purchase price.

It's at this stage that you should be working with a TAG Mortgage Broker on the right type of loan, ask for their help to work out what you can afford in terms of repayments.

FACTOR IN OTHER COSTS INVOLVED

Depending on the property, there can be several additional costs, so ask your TAG finance broker what other payments you will face. This can include, but isn't limited to, stamp duty, loan establishment fees, legal and conveyance services, utilities, property insurance, maintenance and lenders mortgage insurance.

THINK ABOUT YOUR FUTURE

Just because your current situation allows you to get a home loan, that doesn't automatically guarantee that you will still be able to service it in five years' time. Is there a possibility your role at work will change? Are you considering going back to study and reducing your working hours, or even starting a family?

GET PROFESSIONAL HELP

With so many things to consider, getting professional help is highly recommended. There are many experts in the industry and it is in your interest to use them for tasks such as property checks, pest checks and any other legal queries. Going it alone can prove costly. Avoid nasty surprises down the track by getting the right people to do the appropriate checks for you from the beginning.

By using a TAG Finance Broker you are supporting WASMA.

tag Financial WWW.TAG

CONTACT TAG: (08) 9367 1227

24 | WASM ALUMNI

WWW.TAGGROUP.COM.AU



ollow the incredible journey of one of the original innovators of mining - Willy Wilshaw. A rare interview where he bares all.

With a \$500 scholarship he started off his Mechanical Engineering journey in Kalgoorlie. He describes the courses as mining focused with courses heavily focusing on Mechanical, Electrical, Production, Electrical

Engineering and drafting. Everything revolved around design work where you were industry ready.

He started off as a trades assistant on the ground floor. In the late 60's he got his break during the Nickel strikes where management put him in the drawing offices as a draftsman.

In the 70's he left Kalgoorlie on a journey of self discovery which took him across the continents to 80 countries. He recounts his experiences of apartheid in South Africa and the personal conflict he experienced at the way Africans were treated.

He goes on to discuss his return to Kambalda - where mechanisation started to emerge in the region. He describes his drawings for the Portal sets at the Otter Juan mine and the excitement of designing something new and using all his knowledge and how this creativity fuelled the rest of his engineering career. At the peak of his career, with WMC he had 14 mines, a processing plant, spray driers and a power station under his supervision as the Chief Engineer of Kambalda. They boy who started of as a trades assistant proved that anyone can make it to the top - and it those days it was possible.

Willy goes on to describe he atmosphere he created in his company to encourage creativity in his team - "Lets have a go and if it does not work out - we put it to bed". 99% of the time it works - but if it does not - they try and solve the problem. A concern for him being the new generation being too afraid of making mistakes to think creatively and add value for the future. He misses the freedoms that he had back in his younger day but understands why we have so many rules in place now and their importance.

With optimism for the industry of the future, Willy hopes that "old guys like him" are not pushed aside, and that they share their knowledge with the younger people and mentor them. He hopes that experience does not get washed away in the sands of time.

Who will be the Innovators of the digital age? We would love to know from you stories like Willy's which inspire, so get in touch with us.

This episode was sponsored by our partners DaveyBickford Enaex

Have you recently graduated and looking to buy your first home?

The team at TAG Finance will help you choose the right home loan that's best for you!

Exclusive offer to all WASMA Graduates.

BOOK a free 45min Financial advice health check today.

TAG FINANCIAL GROUP ARE A MULTI-AWARD WINNING FINANCE BROKING AND FINANCIAL PLANNING COMPANY.





















TAG Financial Group is proud to support the WASM Alumni for 2018





9367 1227 taggroup.com.au

Enriching your life.







as a newbie geologist riding a small little Kawasaki 200 from Perth, through Kalgoorlie and up to Leonora for my first job.

Looking around the room, we are a very mixed group of people, a classic mining industry group. Some of us who were born here, some who planned to come here to work or to study, and some us who were going to be here for just the one quick job and wound up staying. We each bring with us our own stories, experiences and knowledge to add to our industry. And you graduate will continue this enriching process.

When I was invited to speak to you all tonight, I asked what a good keynote speech might be about. Tell a story, I was told, make it interesting. This is my story: a student, a migrant, a not very tall woman from Asia – maybe not quite so typical back in 1987 when I first started in

this driller and I were the only two people left working in the pit, everyone else had knocked off at lunchtime. At 2pm, the driller shuts the drill off, hops out of his cab and strolls over to me. "It's Christmas Eve" he said. "We'll knock off now, and head into Kalgoorlie, and we'll go to Hay Street. And seeing as it is Christmas, and probably your first time, it's my treat". Hmmmm, I was bemused, did he think I was gay, or did he have no idea that his offsider for the last 3 days was female? As soon as I responded, to politely decline, the driller goes bright red, turns around and hops back in his cab & starts the drill up again. We drilled till 4, knocked off, wished one another a merry Christmas and nothing was ever said about

My next gig was at Bounty Gold Mine, the second FIFO site in WA

IVY CHEN

IVY CHEN,
WASMA MEMBER,
GRADUATED B
APP SC, GEOLOGY
1987, DELIVERED
THE KEYNOTE
SPEECH AT THE
WA SCHOOL OF
MINES ALUMNI
GRADUATION
DINNER FRIDAY
MAY 24 2019 IN
KALGOORLIE.

Here is a copy of this excellent story on her career, an inspiration for everyone working in the Resource Sector.

Congratulations to you, tonight's freshly minted graduates. And a question often asked at this point, where to from here? Many of you have jobs to go onto, further study, travel, business opportunities, or best of all, mysterious dealings you cannot tell anyone about, for now.

I would like to welcome you all, to the resources industry – one of the oldest lines of work in the world, and if you are going to be working in Western Australia, working with some of the oldest rocks in the world.

I am a geologist and I love what I do. That was how I got started,

the mining industry. My parents hadn't quite expected I would choose this path, good well-brought up Malaysian daughters usually pursued the Holy Grail of medicine, law or commerce.

Harbour Lights Mine, Leonora, was one of the best possible environments for a young geo to learn about the mining life. In the late 80s, the mining workforce was an eclectic mix of Vietnam vets, refugees from the Pilbara iron ore mines, migrants and various odd folks who did not fit into life in the city; this was both the professional and contract workforce.

These guys were all, despite their eccentricities, largely generous souls to a new graduate. On Christmas Eve,

Working at Bounty for five years, was a textbook mining experience. I learned to map almost underwater when we sunk the shaft, and to drill deep, kilometre-plus, diamond drill holes. I got to supervise a raise borer, to work with track based Alimak rise miners, air leg stope miners, mechanized jumbo mining, participate in mines rescue as a paramedic, be an environmental officer, waste dump rehabilitator and feral cat killer. Being a small mine, I also got to be a gold room security observer, fill in as senior geologist, ventilation engineer, mine scheduler, and tour guide for local historical societies and the CWA when they visited the

Those years at Bounty also taught me about great loss. Bounty was a mine with very high levels of rock stress, and rock bursts. In the five years I was there, we lost 3 colleagues, in 3 separate mining accidents. After I left, two more were killed. Working on a FIFO mine taught me about the personal cost our industry can levy, the miner is often never at home when we are needed. I was not there when my father passed away from a stroke, I was not there when there were crises at home, I was not there when we had to put our dog down. Marriages and relationships are just that little bit harder work, when you're not there, almost half the time. This is not necessarily going to be your story though, yours could be very different.

The 8 years of mine site work set me up for the next big leap - geostatistics, resource modelling, and telling other people what they should be doing with their deposits. My first gig as a consultant was in the deep end, of the pool of mathematical modelling of geological structures. Learning geostats was amazing; seeing that dancing numbers, can draw sweeping lines of rock formations, unravel the depths of complex folding, and answer the eternal question of where the ore has gone. And to those who say there are lies, damned lies and then statistics, yes, but there is also so much more!

And was there ever... This was the period of the Bre-X Busang scandal, where geostats played a major role in uncovering the salting of alluvial gold into bags of drill cuttings, in Indonesia. To this day, Busang remains the most elaborate and expensive fraud in the history of mining.

We're now in 1998, a downturn when gold was US\$275 an ounce (it's roughly US \$1,270 this week). An opportunity came up to work in China - the first private Chinese-Australian joint venture, with Sino Gold in central China, in the same province as the Terracotta Warriors.

China was the source of many lessons for me. I learned to always check my assumptions, "normal" in China is far from "normal" in Australia. And I also learned that to Chinese people, all westerners looked the same; as one of my geos casually mentioned in conversation one day, "it's a good thing these Australians have different hair colours or we would have even more difficulty telling them apart"

In 2002, I achieved mining industry Nirvana. I stepped out of the mining industry for a couple of years, to help run the family wine business, in the Margaret River wine region. I part-owned a bottle shop!

In the middle of this, the biggest mining boom in Australian history had begun. You would have all seen that amazing graph where our gross mining exports skyrocket from about 4 billion in 2005, to 22 billion in 2013. It was too good to not return to mining. From 2004 to 2009, I worked for a database consulting company, a manganese mining company, and another consultancy.

Then an opportunity came up with ASIC, the federal government's corporate cops, and so began 6 years as a regulator, technical translator, sometimes bull-dust detector, and sometimes ambassador from the Dark Side. Which side was the Dark Side, flipped from one side to another, depending on who was involved in the conversation at the time. Over those six years, I mucked in with what seems like thousands of hours of discussions with in-house and external lawyers, corporate advisers and company directors. I am a geologist that can speak lawyer.

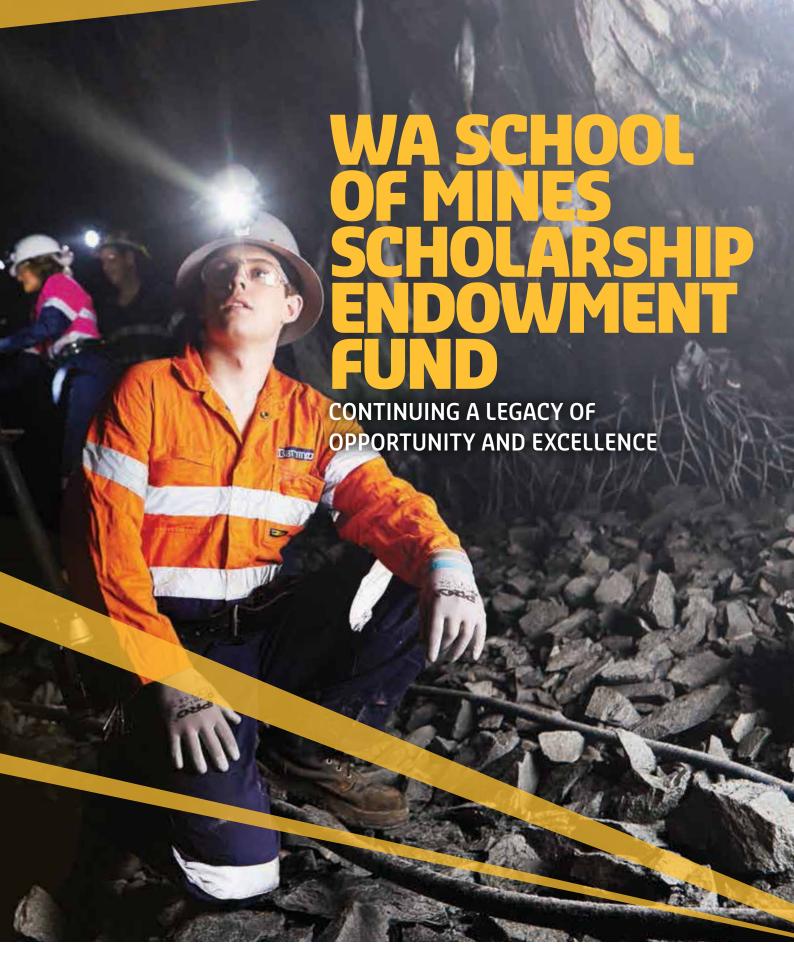
My job with the regulator ceased to exist after budget cuts, and geology became a luxury that the world of corporate regulation could no longer afford. I returned to consulting, where I am today: filling that space between the highly technical side of the mining industry, and the bankers, lawyers, auditors and regulators, a specialist generalist.

I have also become a nonexecutive director of a company developing a graphite project in Mozambique, a director of my professional association the AusIMM, and a director of a not-for-profit organisation that supports migrants and refugees in their first five years in Australia.

You graduates are now starting out. Choose a path that is driven by both heart and head. Become captains of industry, many graduates before you have - over 40% of companies in the Resources Sector within Australia, are led by WASM Alumni. Remember that being a leader in our industry, carries with it, the responsibility to also be a leader in our society. Our strength is not in the quality of our commodities, it is much, much more in the quality of the people that work in mining; in our resilience and our capacity to adapt, to learn, to adopt new ideas and technology. Manage people the way you want to be managed.

Wear more than one hat don't be just a miner - also be the SES volunteer, the junior netball coach, the greenie who organises the Clean Up Australia campaign, the Mum or Dad on the school tuckshop roster, the Lions branch president and the local shire council member. Raleigh, Vic, the Class of 1969, and many graduates who have come before us, have all shown that we can build in our industry, a culture that is strong in loyalty, honesty, and ethical behaviour.

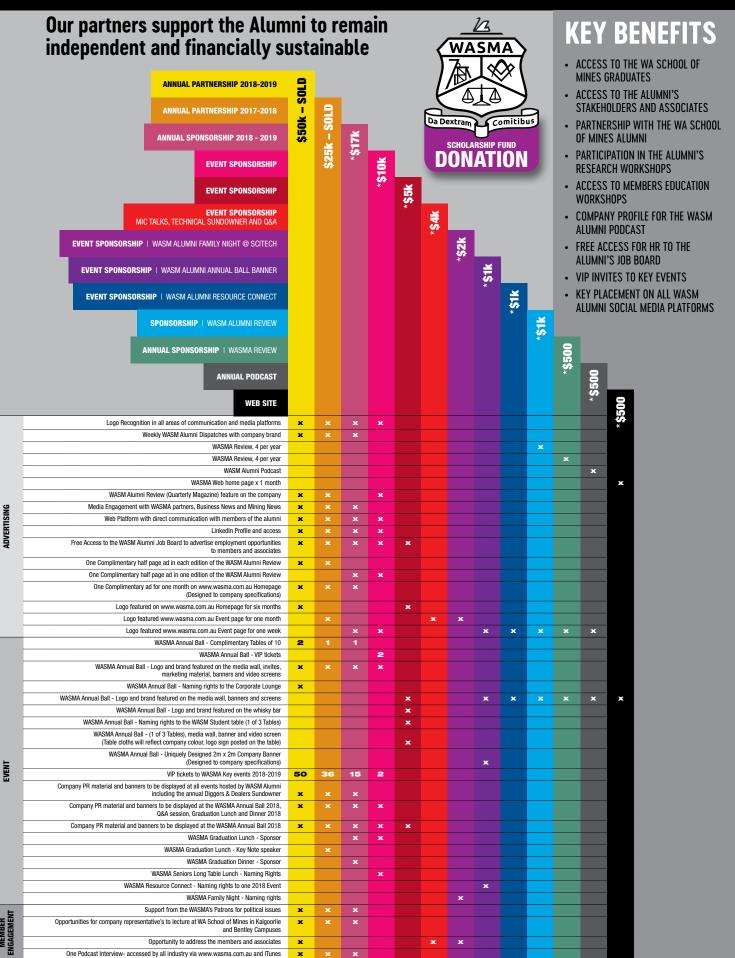
Stay connected to the people that you have graduated with; this group will be your touchstone when things get tough, they will be the people you have a drink with, to celebrate the wins. I look forward to hearing the stories that you will craft; and most of all, to also hear people say in the same breath, "and you know what, they are such decent people too". ■



CURTIN UNIVERSITY FOUNDATION Make tomorrow better.



WASMA PARTNERS....





TOP TIER









GOLD









SUPPORTER

















PARTNERS























