General

The South Australian Chamber of Mines and Energy (SACOME) represents over 320 members in the resources and energy industries in South Australia. We welcome the opportunity to provide comments in relation to the Inquiry into the Non-Financial Barriers to Mineral and Energy Resource Exploration.

South Australia has a significant global resources sector.

South Australia:

- Is the largest producer of uranium in Australia and hosting 40% of the world's known recoverable uranium reserves
- Produces around a third of Australia's copper and hosts 70% of Australia's known copper resources
- Produces and exports 25% of the global zircon supply and hosts the largest, highest assemblage zircon development in the world
- Hosts Olympic Dam mine, Australia's largest underground mine, which has the world's fourth largest remaining copper deposit, fifth largest gold deposit and the largest uranium deposit
- Has the world's largest single-stream lead smelter at Port Pirie, where refined zinc, copper and silver are also produced
- Produces 80% of the world supply of opal
- Is ranked number one in the world for Geological Databases (according to the Fraser Institute Survey of Mining Companies 2011/2012)

How has the complexity of the approvals process increased over time? What factors are contributing to the increasing coverage and complexity of the approvals process? What can be done to reduce this complexity while still meeting regulatory objectives?

On 1 July 2011 amendments to the *Mining Act 1971* (the Mining Act) and new Mining Regulations 2011 (the Regulations) came into effect. These included:

Notice of entry - In accordance with the new provisions of Part 9 of the Mining Act and the new Mining Regulations, the service of notice of entry now provides the owner of land with information on the proposed mining activity, including the location and duration of the proposed activity and how the activities on the land will be managed. The mining operator must also describe the process by which the owner of land will be kept informed regarding the proposed activity on the land.

Notice of entry must be served on native title parties - Notice of entry is required to be served on the 'owner of land' as defined under the Mining Act. The owner of land includes a person who holds native title in the land. For native title land, notice of entry must be served in accordance with section 5 of the Native Title (South Australia) Act 1994:

a. *Where there is a native title declaration or registered claim group in the area* – to the relevant native title holders or registered native title claimants, and the registered Aboriginal representative body in South Australia (currently South Australian Native Title Services Ltd).

b. *Where there is not a native title declaration or registered native title claim group in the area* – to the registered Aboriginal representative body in South Australia (currently South Australian Native Title Services Ltd).

Waiver of exemption - There are new provisions relating to the negotiation of a waiver of exemption in order to conduct mining operations on exempt land. The new provisions provide a two-step process by which a mining operator serves notice on the relevant owner of the exempt land and then further negotiates an agreement to conduct mining operations on exempt land. The waiver of exemption may be made by completing Forms 23a and 23b or by serving Form 23a and negotiating a written agreement signed by all parties.

There is a cooling off period of 5 business days following the execution of an agreement whereby the owner of the exempt land may, by written notice, rescind the agreement.

If the mining operator is unable to reach an agreement with the owner of the land, they may apply to the Environment, Resources and Development (ERD) Court for an order waiving the benefit of the exemption.

If the mining operator has served a notice to negotiate a waiver of exemption agreement, they are liable to pay costs up to $500 (or some other amount as prescribed) to the person on which the notice was served for obtaining legal assistance related to the notice.

Changes to landowner-related rights and obligations - Under the compensation provisions of the Mining Act, compensation may now include reasonable costs incurred by the owner of land in connection with any negotiation or dispute related to access to the land, activities to be conducted on the land and any economic loss, hardship or inconvenience suffered due to the proposed mining operations.
If mining operations will substantially impair the landowner's use and enjoyment of the land, they may apply to the Land and Valuation Division of the Supreme Court for an order to transfer the land to the holder of the mining lease or miscellaneous purposes licence. This provision does not apply to exploration licences.

The feedback from SACOME members regarding approvals and processes were as follows:

"In respect access to land, following the revision of the Mining Act, my feeling is that this is now harder for explorers than before. We are required to present landowners with significant documentation as part of the process of gaining their permission to access their land and frankly, they find it easier to throw the bulky docs in the bin and just say NO.

If a landowner does consent, there is the added and very concerning issue that in the case of agricultural land, a landowner can allow access for exploration by signing a waiver of exemption for a set period, a company can then invest very significant money in exploration during that period, but when the waiver sunset arrives and a new waiver needs to be executed, the landowner can refuse to execute, thereby putting at serious risk the initial investment. The option of then going to the ERD court exists but this action is seen as having a significant likely risk of engendering widespread negative sentiment amongst neighbouring landholders and ultimately doing more damage than good."

"My sense is that many of the changes made to gaining approval to access land no matter its underlying title situation are bureaucracy for bureaucracy's sake, or are a sop to the farmers in the wake of the QLD coal seam gas issues."

There is no doubt that with exploration companies moving into the farming areas of South Australia, both industry and State Government have been under pressure to navigate a course between a 'social licence to operate' and timely and efficient approvals processes.

How has the length and number of steps required of the approvals process changed over time? How does it compare with the international experience and across jurisdictions in Australia? Are there ways to shorten the duration of the approvals process while still meeting regulatory objectives?
Are there adequate resources and expertise to administer the system?

"We used to be able to get PIRSA permission to conduct exploration through an Exploration Work Approval in hours or a few days at most – now it takes up to a month for DMITRE to approve these but it seems to me the goals from the regulators point of view haven't changed (so why?)."

As the peak industry body, SACOME monitors the approvals processes on behalf of its members.
Representatives from the State regulator, DMITRE, have admitted that there was a slowing up of approvals in recent times, but that this was a temporary situation that would sort itself out once a back-log was cleared.

It is recommended that a tracking system for EL approvals be implemented and targeted timelines for all exploration approval stages be introduced and adhered to. The South Australian Government has set a target of 6 month approvals for a mining lease grant.

"The problem in the regulatory process in SA comes from the lack of having 5 or 6 senior people who are able to make timely decisions. The industry and Govt must ensure a more expeditious process of approvals is effected."

"The level of documentation required far exceeds regulatory requirements in many cases, but should another department have an interest or concern, applications are then overburdened with unnecessary requests for immaterial or irrelevant information. Worse than that, the regulator in SA has been marginalised or intimidated by other 'softer' departments which have a peripheral interest only, but seem to have assumed monopoly control of this state"

"The SA govt has also changed the DEF process for approval to explore in various "mining allowed" reserves to the PEPR process. Notwithstanding the name change, our experience is that the amount of work required to compile the application is significantly greater than in the past however one would seriously question whether the outcome was any better."

The State Government should always be looking for ways to reduce 'red tape' without compromising environmental outcomes.

For companies working across State jurisdictions, different regulations and complexities are still a burden.
An industry representative sums it up well below:
"In my experience companies genuinely want to do the right thing and undertake exploration in a safe and sustainable manner. When working across multiple jurisdictions as larger (and even some smaller) explorers do, varying regulatory requirements mean that it can be both confusing and overwhelming when trying to ensure compliance. Much time can be spent on unravelling the different requirements of the various pieces of legislation and departmental requirements in one State, let alone across a number. The clearer each State can make their expectations – via cross-department guidelines and clarity on communication and streamlined reporting, the more time companies can spend on ensuring their activities are safe, sustainable and compliant rather than on focusing on all minor red tape processes that could inadvertently cause delay to critical timeframes."

Has there been an adequate examination of the costs and benefits of excluding exploration activities from particular land? Should land be indefinitely excluded from exploration activities, and if so under what circumstances? Are independent, transparent and evidence based processes used to determine which land is to be excluded from exploration activities?

It is SACOME's position that land should not be indefinitely excluded from exploration activities.

An example in South Australia, where the State Government banned mining, was through the Arkaroola Protection Act 2012. Located in the northern Flinders Ranges, Arkaroola is widely recognised for its outstanding geological, paleontological, biodiversity, conservation, landscape, wilderness, cultural, educational and tourism values.

On 22 July 2011, the South Australian Government announced that Arkaroola would be permanently protected through the establishment of the Arkaroola Protection Area. The area comprises most of the Arkaroola Pastoral Lease and also includes the Mawson Plateau region of the Mount Freeling Pastoral Lease. The area is approximately 590 km^2.

The Arkaroola land was reserved from the operation of the Mining Act 1971 and the Opal Mining Act 1995 by a proclamation of the Governor (no such mechanism exists in the Petroleum and Geothermal Energy Act 2000) on 29 July 2011. The Arkaroola Protection Act 2012 was developed and came into operation on 26 April 2012. The purpose of this Act is to establish the Arkaroola Protection Area; to provide for the proper management and care of the area; and to prohibit mining activities in the area. The area entered in the State Heritage Register on 27 July 2012.

The South Australian Chamber of Mines and Energy (SACOME) supported the decision by the Government to protect the Arkaroola Protection Area from significant surface disturbance. However, the Arkaroola Protection Act 2012 raises concerns regarding the explicit prohibition of mining activities in the Protection Area.

The Arkaroola Protection Act 2012 states in part:

10—Prohibition of mining operations and regulated activities

(1) After the commencement of this section, rights to undertake mining operations or regulated activities cannot be acquired or exercised pursuant to a mining Act in respect of land within the Arkaroola Protection Area.

(2) Subsection (1) has effect despite the provisions of any other Act.

(3) However, nothing in this Act affects the rights of an adjacent tenement holder in respect of any land comprised in the tenement that is outside the Arkaroola Protection Area.

SACOME argued that the Arkaroola Protection Act 2012 should have defined prohibited activities that will cause significant disturbance to the environment and landscape by reference to specific regulated activities rather than an Industry in itself. For example, the Act could have prohibited significant excavations. This would have had the effect that not only would have excluded an open cut mine from occurring, but also activities from other industries that require a significant amount of land to be moved.
This would have achieved the objective of preserving the Arkaroola region along with the Government's stated objective of being pro-mining.

Secondly, the Act excludes any activity defined within the boundaries that is considered a mining act or a regulated activity. This absolute policy has the unintended consequence of prohibiting subsurface mining from the periphery of the defined Arkaroola Protection Area.
Those tenement holders who have current tenements that overlap the edges of the Arkaroola area cannot, under what is proposed, mine a deposit that runs underneath the boundary of the area. These activities may only disturb a minimal amount of area, if any, above where the deposit is mined.

SACOME believes that the Arkaroola Protection Act 2012 is inconsistent with the State Government's stated multiple land use policy. We would continue to argue that areas of sensitivity can be protected through defined prohibited activities and the potential outcomes from those activities without specifying any one particular industry. If then, for example, as technology evolves, an activity might be undertaken that achieves a result for an industry without any or minimal disturbance, then that activity may be able to proceed.

How can the mineral and energy exploration sector coexist with other types of land use, such as agriculture? Are the additional processes and conditions placed on exploration activities necessary to ensure agricultural production is protected? Are current government policies and legislative responses based on a robust and transparent account of the costs and benefits of different types of land and aquifer use?

SACOME has been extremely proactive to ensure the best possible practices are in place for exploration and mining to coexist with other types of land use especially agriculture.
Working closely with the South Australian Farmers' Federation (SAFF) in 2008, SACOME developed 'A Code of Conduct for Landholders and Mineral & Energy Explorers in South Australia - a framework for access to rural land.'

Exploration and farming are not necessarily mutually exclusive. Early exploration activities are relatively flexible and short lived, involve relatively few people, mobile equipment and can be managed so that activities occur outside critical farm programs or the cropping season. Under more comprehensive exploration programs, co-existence of land uses may be more problematic in which case reasonable compensation is negotiated for the economic loss resulting from any temporary exclusion of areas from farm production.

Misconceptions around the distinction between resource exploration and production highlight the necessity of providing a better understanding of the nature of exploration and implications for landowners and communities. This is the responsibility of Department of Manufacturing, Innovation, Trade, Resources and Energy (DMITRE), exploration companies and SACOME. Equally, explorers should acquire a better understanding of the business of farming to facilitate coexistence.

Contrary to the perception that the rights of exploration companies exceed the importance of food and fibre production and that farmers have little option but to agree to this 'interference', mining legislation does give farmers options and does protect farmland (i.e. the exempt land provisions in Section 9 of the *Mining Act 1971*).

Exempt land can only be waived by landowners and only after they are fully informed of their rights and what waiving the exemption would mean. General compensation provisions apply when conducting exploration activity for economic loss, hardship, and loss of amenity. These rights of the landowner and rights of explorers are detailed in publications by DMITRE, are freely available on their website and should be provided to landowners by companies. In waiving exemptions an agreement is required by negotiation between landowners and explorers, which include conditions of access and compensation arrangements.

Resources companies do have a right to lodge an application to the Environment, Resources and Development (ERD) court seeking permission to access land and orders to waive the exempt land status where a land access and compensation agreement cannot be negotiated with a landowner. The ERD Court has the powers to authorise access, subject to conditions and make determinations relating to compensation. However since 1994 there are very few examples of companies seeking such orders either from the ERD or Wardens Courts.

DMITRE has worked through the Standing Committee on Energy and Resources (SCER) and COAG in developing the Multiple Land Use Framework (MLUF). This framework will give direction to policy, planning and development for jurisdictions that is consistent and comprehensive.

SACOME supports the Multiple Land Use Framework.

There is no doubt more can be done by Governments on the costs and benefits of different types of land and aquifer use to inform any policy decisions and legislative responses.

Water has been, and is, a subject of strong opinions and debate as to its availability and use for the mining industry, especially in the farming regions. Detailed mapping must be undertaken to provide base-line data to inform any decisions on usage.

The South Australian Government Department for Environment, Water and Natural Resources (DEWNR) has been tasked to undertake detailed mapping to identify ground water resources and potential extractable volumes at key identified areas in South Australia.

A priority is the key area of the Eyre Peninsula. This is crucial to allow identification of sustainable water supply solutions for future resources projects in the region. The Eyre Peninsula and surrounding regions host some of the largest iron ore deposits in South Australia with exploration in this area well advanced, but it is acknowledged that natural water resources are limited and scarce.

Consequently, there is a clear need for all users to better understand the quality and quantity of water that is available. The Eyre Peninsula (in particular south of the Polda Trough), is an area that has been specifically targeted as part of Phase 2 of the non-prescribed water project to further develop an understanding of the groundwater resource in this area. Findings will be made available through DEWNR's web-based WaterConnect site and on DMITRE's Infrastructure Channel.

Other projects include the FLOWS Initiative which has a comprehensive suite of programs: a research project conducted by the Goyder Institute for Water Research (G-FLOWS), groundwater assessments in non-prescribed regions of the State, a project assessing mound springs in the Great Artesian Basin (GAB), the potential impact of climate change on water resources across the State and the Australian Government Initiative on Coal Seam Gas and Large Coal Mining – Arckaringa Basin and Pedirka Basin Groundwater Assessment Project.

These projects and the resultant mapping will provide improved access to groundwater information across the State and greater certainty of supply and access to this valuable resource for industry and communities. It will also support the resources sector in planning its water supply options.

New information from the resource and energy sector will be critical for identifying future demand and supply gaps, and will be incorporated into the annual review of the statements.

Are the current heritage requirements providing an appropriate balance between heritage preservation and resources exploration? Are there aspects of Indigenous and non-Indigenous heritage requirements that pose an unnecessary impediment to resources exploration? Are there ways to streamline the processes while still meeting regulatory objectives?

In December 2008, the South Australian Government released a Scoping Paper for the Review of the Aboriginal Heritage Act 1988, stating in the foreword of the Scoping Paper that, *"There is now a need to review the AHA, taking account of the changed legislative and policy context and changing community attitudes and expectations, so that new legislation can be fully effective to protect Aboriginal heritage. Consistent with the policy and legislative priorities of the Government, the proposal to review the AHA will be underpinned by the following Guiding Principles:*

- *Recognising Aboriginal custodianship of cultural heritage;*
- *Creating a strong framework for long term protection and management of Aboriginal heritage;*
- *Enabling Aboriginal negotiation of agreements about heritage;*
- *Embedding Aboriginal heritage considerations into the development and land management process;*
- *Creating timely and efficient processes;*
- *Creating certainty for all parties;*
- *Complementing the Native Title Act 1993 (Cth).*

These Guiding Principles are intended to shape the development of a range of possible options. The final form of new heritage legislation will be decided following extensive consultation, robust debate and careful analysis."

In February 2009, the SACOME Council passed a resolution to work with the SANTR peak bodies and the Indigenous stakeholders to investigate the possibility of making a joint submission on the Review of the Aboriginal Heritage Act, 1988. Other peak bodies were persuaded that a joint submission would place each in a stronger position to achieving a strategies framework they could work with than separate submissions.

As a result the State Aboriginal Heritage Committee and the Aboriginal Congress of South Australia Inc (represented by their Joint Aboriginal Heritage Committees), Local Government Association of South Australia Inc., South Australian Chamber of Mines and Energy, South Australian Farmers Federation, South Australian Native Title Services and Wildcatch Fisheries SA Inc. lodged a joint submission on 30 October 2009.

The principles in the submission, on which all parties agreed, are:

- The definition of Aboriginal sites, objects and remains as defined in the current Act to be retained and all Aboriginal sites, objects and remains to be protected whether registered or not.
- The management and administration of the Act should be vested in an independent authority.
- The Act should recognise Registered Local Aboriginal Organisations (RLAO).
- The Act should include a duty of care (DOC) on proponents carrying out any activity. The parties also submit that the Act should impose duties of care on RLAOs, traditional owners and anthropologists and archaeologists.
- Acting in compliance with the cultural heritage duty of care should also protect a proponent against prosecution for damaging disturbing or interfering with an Aboriginal site, object or remains.
- Cultural heritage duty of care guidelines, which follow those in Queensland, should be implemented under the Act (adapted where necessary for South Australian circumstances).
- The Independent Authority should have the function, on application by a proponent, to grant it a certificate authorising it to carry out an activity, subject to any conditions set out in the certificate.
- The Act should be integrated with development and land use legislation by providing that activities authorised under development and land use legislation may not be carried out unless the proponent complies with the Cultural Heritage Duty of Care Guidelines or otherwise has complied with the cultural heritage duty of care.

- Clear time frames should be imposed for processes under the Act such as negotiation of agreements, CHMPs and issue of certificates. These time frames should take account of cultural requirements.
- Offences under the existing Act should be retained and possibly extended, including by reference to the features of the proposed new Act.
- The Minister for Aboriginal Affairs should retain the power under the new Act (as a last resort) to authorise activities which would otherwise constitute and offence under the Act.
- The entire legislative scheme and its management and administration must be appropriately financed by the State to ensure its efficient operation.
- Fees should be prescribed for the grant of certificates by the Independent Authority and considered for heritage clearance team members and archaeologists and anthropologists (this latter component not being supported by SACOME).

It was also recommended that, with regard to the release of the Australian Government's discussion paper on Indigenous heritage law reform, the parties and the State should co-operate in making submissions to the Commonwealth to ensure that the criteria for accreditation of State Aboriginal heritage legislation, proposed to be incorporated in changes to the Aboriginal and Torres Strait Islander Heritage Protection Act, 1984 (Cth), are sufficiently flexible to allow a revised South Australian Aboriginal Heritage Act to be accredited under the amended Commonwealth Act.

Disappointingly, at the time of writing this submission, in March 2013, there has been no response from the State Government to the Joint Submission lodged in October 2009 and no revision of the Aboriginal Heritage Act 1988.

Feedback from industry members vary:

"I don't think either Aboriginal or other Heritage issues are too serious an access concern these days, although I have heard of some (Burra) where there have been issues."

"Better land access through an improved heritage site assessment and tenement granting process would also smooth and hasten the exploration process and therefore any potential future mineral development within APY."

One explorer member writes:
"Heritage Engagement Clearance and Approvals

1) Uncertainty regarding timing & effectiveness of Heritage Consultation & Clearances

• Reluctance to enthusiastically address consultation/clearance requests *(often excuses of "over worked")*
• APY monopoly on heritage / legal services *(lack capacity to effectively provide that service)*
• Protracted scheduling & completion of heritage clearance work *(often delayed & rescheduled on multiple occasions)*
• Essentially simple / straight forward clearance activities often drawn out *(reliability/commitment of TO parties to process)*
• Clearance often not completed to the detail of request (or inconclusive) *(requiring repeat of survey)*
• Consistency, reliability & credibility of heritage outcomes *(previously cleared areas becoming "Broad" exclusion buffers)*
• Accountability that heritage survey results commensurate to request *(clearance resolution required by request often not achieved)*
• Lack of guidance & will to effect compromise outcomes beneficial to all parties *(Access to one target has been negotiated for more than 10 years without outcome)*

2) Difficulty maintaining transparency & trust with indigenous groups

Perceived causes
• Organisational "gate keeper" mentality
• Exclusion of company reps from clearance process / engaging-communicating with TO group
• Accusation that company is not engaging with TO group (yet this exclusion seemingly driven by Anthros)

3) Operational frustration

• Inability of Proponent Company to hold heritage organisation accountable without fallout *(ultimately at whim of land council organisation TOs/Anthros)*

• Exorbitant rates / without providing a competitive commercial service / double dipping on Govt funded roles"

SACOME hopes that the State Government will release the draft legislation deriving from the review into the AHA soon and that a number of issues can be resolved if the agreed principles as per our Joint Submission are reflected in the legislation.

To what extent is there duplication and overlap between the state and territory environmental regulatory requirements and the EPBC Act? Does duplication exist within jurisdictions? What changes to the existing arrangements could reduce unnecessary regulatory burden and time delays while maintaining appropriate environmental protections?

The *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the primary federal legislation for protection of matters of *National Environmental Significance (*NES) and applies in addition to state based environmental legislation (e.g. the South Australian *Native Vegetation Act 1991*) and environmental regulations regarding resources developments i.e. *Program for Environmental Protection and Rehabilitation* (PEPR) or a *Statement of Environmental Objectives* (SEO).

In April 2012, the Council of Australian Governments (COAG) agreed to develop bilateral agreements for developments under the EPBC Act which would accredit state assessment and approvals processes with providing adequate protection of matters of NES.

The proviso was that state legislation be consistent with federal standards in order to seek equivalent outcomes with less process duplication. For example, where the conditions of a PEPR or a SEO under the South Australian *Mining Act 1971* and *Petroleum & Geothermal Energy Act 2000* respectively satisfy those of the EPBC Act, the approvals from the relevant Ministers can be accredited under the EPBC Act. This removes the need for a separate assessment and approval from Canberra.

Essentially, the EPBC Act would remain the key legislative mechanism for matters of NES and the Federal Environment Minister would retain discretionary power to intervene if necessary.

The states were supportive of the move toward bilateral agreements on the condition that the Commonwealth provide financial assistance to ensure adequate compliance.
Establishment of bilateral agreements would streamline environmental approvals substantially reducing assessment and approval timeframes and provide more decision-making clarity and consistency, ultimately reducing costs and making investment more attractive.

South Australia has effective environmental legislation that impose requirements that must be addressed in PEPRs/SEOs to ensure protection and management of the states native vegetation, threatened and ecologically important fauna and water resources, and management of emissions and waste, whilst also promoting sustainable development.

Under a bilateral agreement, the state government would be responsible for both the assessment and approval of a proposed development, subject to any legislative measures outlined in the EPBC Act for any factors likely to impact on matters of NES.

While the state has the approval power, the Federal Minister for Environment would retain discretionary power to overturn a decision if necessary. A provision that all environmental assessment reports and associated documentation regarding a proposal be tabled in parliament upon request also ensures that appropriate scrutiny can be applied towards any assessment and approvals process by members of parliament.

Opposition to the concept of assessment and approval bilaterals has been strong, especially from environmental NGO's. Subsequently, Australian Greens Senator Larissa Waters introduced an amendment bill to the EPBC Act, seeking a series of omissions and repeal of all sections that allow for approval bilaterals and mechanisms that facilitate negotiations between the Commonwealth and the States regarding environmental approvals.

In December 2012, the Federal Government deferred the decision until the March 2013 COAG meeting, citing concerns around state approaches to standards and the need to have in place a consistent and comprehensive set of standards before proceeding with the agreement.
SACOME believes that this decision was a lost opportunity for improving the assessment and approvals process whilst not reducing environmental standards.

The South Australian resources industry does not wish to avoid its responsibilities regarding environmental management and compliance. SACOME supports bilateral agreements for developments under the EPBC Act which would accredit state assessment and approvals processes with providing adequate protection of matters of NES.

Has industry been adequately involved in the training and education of the skilled workers required for resource exploration? How have the vocational education and higher education sectors performed in educating and training the skilled workers required for resource exploration?

In late 2011, SACOME commissioned an internal research report titled "**An industry constrained -** A Review of Training and Education in the Resources Sector in South Australia".

This research project was designed to establish some baseline information in relation to the current status of resources industry training and education in South Australia, including:

- Whether there are gaps in current training offerings
- What those specific gaps are – which skills, at what level, in which locations…
- How many employers have the same needs - to determine critical mass for particular programs
- How employers would like those programs delivered – online, full-week blocks to co-incide with FIFO arrangements, face-to-face in regional or metropolitan centres, on individual work sites…
- What training issues employers could foresee arising in the next 5 years.

A selection of mining and energy companies in production in South Australia were interviewed in person or by phone, together with a sample of exploration companies. Contractors and labour hire companies operating in South Australia were also involved. In total, the study covered 29 respondents representing 25 companies**. A summary is provided below:**

Market failure in resources training ?

South Australian institutions and commercial training organisations are not able to meet the considerable demand for resources training in this state, with companies often seeking trainers from WA, Qld and NSW and overseas. There are some training areas which are impossible to source, and others which remain very difficult – mostly in trade training.
When combined with equally difficult staff availability in many vocational fields – and endemic staff retention problems - the human capital side of the resources industry is struggling. There simply are not enough trained people to meet the needs of resources companies in South Australia – and it would appear this problem is a national one.

Providing more training to unskilled or new-to-resources workers is not a viable short-term solution – because there are not enough trainers to meet current needs, let alone the growing future requirements of the industry. First of all, trainers must be found or created.

The project has highlighted three unexpected findings which illustrate the depth of the problem:

1. Large companies are facing much the same difficulties in accessing training as smaller companies and explorers: the financial resources, buying power and market prestige of BHP Billiton and Santos have *not* been sufficient for them to solve training shortages.

2. Remoteness, of itself, was not generally viewed as an issue in accessing training. Companies with operations close to Adelaide had as much difficulty in accessing training on some topics as those on remote sites. And where trainers *are* available, they are quite happy to visit remote sites.

3. The cost of training was not mentioned as an issue by any of the companies which are in production. Price was a factor for a few explorers, who generally have limited cash reserves and no income streams – but it was by no means the most important factor for *any* company. Essentially, companies are not having difficulties finding training because they cannot afford the price being asked by training organisations.

One major cause of the problem is that with current mining sector wages, trainers can make a lot more money actually *doing* their trade, rather than training others to do it. Surprisingly, the market is not responding to this issue by raising training prices.

This would seem to suggest some sort of market failure in the training field. It also indicates that the problems may be beyond the ability of individual companies to solve, and governments may not be flexible or nimble enough to grasp the urgency and importance of the issue, at least in the short term.

Resources training - the state of play

The community generally is under the impression that that employees (especially young people) are leaving traditional industries to flock to the mines, which are awash with highly-paid employees while the rest of the economy languishes. There is some truth in this – but this report highlight aspects of this internal migration movement which are worth noting:

- Some of those who wish to work in resources are not receiving pre-employment training which is helpful in gaining employment in the industry, resulting in great frustration for them and their potential employers, and wasting public funds on courses which do not "hit the spot". Simply providing relevant and targeted initial training to these keen people would increase the pool of work-ready resource employees considerably.

- Many staff who do arrive on site are unprepared for work in remote locations, with many leaving before they have acclimatized and come to accept and even enjoy their unique working environment. Again, these people are keen to join the industry and already have valuable kills, but they need better preparation so that they have realistic expectations about their work site *before* they arrive. The chances of retaining them in the industry would then be considerably enhanced.

- The resources industry needs even more workers than it currently has, so it is imperative that the training shortages outlined in this report are addressed urgently. This need for yet more trained workers needs to be communicated to the community at large – especially the need for workers in the resources sector here in South Australia. Workers do not necessarily need to leave home to join the resources boom.

TAFE SA

Many companies had negative comments about TAFE SA generally – inflexibility, quality of courses and teaching, lack of course offerings in particular locations, scheduling of courses, lack of customisation and so on. Come companies are turning to TAFE in other states to provide what they need – NSW, Qld and NSW were all mentioned by several companies, with varying results.

The apprenticeship system

There was considerable divergence of opinion among the larger companies about the future of the apprenticeship system, although all agreed that it needs considerable reform. The GFC has had a big impact: one company employed 188 apprentices before the GFC and currently only employs 69! The flow-on effects of this will be felt throughout the industry for decades to come. A training system that relies heavily on employer sponsors, who react quickly to adverse short-term market conditions, may not provide the long-term skilled employees Australia needs.

University issues

There are insufficient numbers of technical graduates (geologists, metallurgists, engineers) being produced in Australia to meet the demands of the resources sector. This is presumably part of the national swing away from the sciences by young people, and needs a multi-faceted approach if the shortage is to be addressed, even in the medium term. Companies are resorting to sponsoring skilled foreign immigrants to fill technical positions.

The quality of technical degrees (especially geology) in universities was keenly disputed by some companies, who complained geologists did not have sufficient in-depth knowledge of geology to be useful. Geology is now just one component of a more general Earth Sciences degree. In addition, the courses do not contain enough field study: geology graduates are not adequately "work-hardy" and have insufficient field experience in remote locations. Newly-qualified geologists have left their first jobs in Whyalla (hardly remote!) *within a week of arrival.* This is a terrible waste of training resources, as well as a tragedy for the individuals involved. Scholarships and cadetships for technical students, which include on-site vacation work experience, could assist here.

Contractors and labour hire

Contractor and labour hire training is contentious, with some mining companies finding contractor staff arriving on site well trained and work-ready, and many others finding dangerous gaps in the skills and work-readiness of contractors - requiring extensive training before the staff can be deployed on site. Mining contractors were generally thought to provide better skilled staff than labour hire firms, who were heavily criticised by mining companies for providing poorly-trained staff. Drilling contractors also received considerable criticism. One mining company reported having 16 safety incidents in a single week from a labour-hire staff of 20, with no incidents being reported from its own 100 employees in that period. This lack of skills puts the whole workforce at risk.

Government-related issues

A number of government training programs, at both the State and Federal levels, were not thought to be very useful by respondents. In addition, many companies were uncertain as to what assistance was available, and asked for a consolidated website covering all relevant initiatives.
More broadly, governments have a major role to play in:

- Promoting trade careers generally, especially to university-educated parents who may not currently encourage their children in taking up trade training
- Promoting mining careers in schools and universities, especially technical vocations of all sorts
- *Effectively* undertaking workforce planning in the resource sector
- Remote and regional employment training assistance.

What occupations and skills sets relevant to resource exploration are currently subject to shortages?

Research on occupations and skills sets relevant to resource exploration only is not a usual subject, however, there has been various studies into labour demand and shortages across the resources industry as a whole. In South Australia there is a project currently underway by the Resources and Engineering Skills Alliance (RESA) researching estimates of workforce profiles for the period 2011 to 2020.

RESA has completed one part of the study titled "Workforce Study for the Resources Sector in the Eyre Peninsula". From the workforce forecasts provided, the following occupations will experience the greatest job openings:

- Accountant
- Electrical Engineer
- Production or Plant Engineer
- Environmental Scientist
- Metallurgist
- Laboratory Technician
- Mechanical Technician
- Motor Mechanic – Diesel
- Metal Fabricator/Boilermaker
- Electrician
- Stationary Plant Operator
- Truck Driver
- Surveyor
- Mechanical Engineer
- Mining Engineer
- Geologist
- Occupational Health and Safety Professional
- Electrical Technician
- Metallurgical Technician
- Welder
- Fitter
- Driller
- Mobile Plant Operator
- Mining Support Worker

Does employer sponsored migration represent an effective way to address these shortages, in the short-term and over the longer term, and are the current employer sponsored migration processes efficiently administered?

The Australian Mines and Metals Association (AMMA) recently released facts relating to 457 visas specific to the Australian resource sector. Derived from ABS and Department of Immigration figures for the 'Mining Industry' category (encompassing oil and gas activities), these facts include:

- In the 2012 calendar year the mining industry had 2,430 temporary visa (457) applications granted. This represents just 0.9% of the direct Australian mining workforce as of November 2012 (269,700 workers).
- Last year's 457 visa intake in mining is 7.3% less than 2011, where the industry brought in 2,620 skilled migrants (457 Visa) and had a workforce of 215,000 people.
- During 2012, resource employers created 28,500 new Australian jobs and 93% of these went to local Australian workers.
- The direct mining industry workforce has grown from 137,000 people to 270,000 people in just five years since 2007, or an average of 20% year on year.
- Despite our industry's employment growth, 'mining' 457 Visa numbers have remained stable; meaning the proportion of annual 457 visas granted to our total workforce has dropped from 2.6% in 2007 to 0.9% today.
- The government's BREE agency lists $650 billion worth of major resources projects either underway or proposed for Australia between now and 2018, forecasted to create a further 140,000 jobs through the construction phase.
- There is no evidence of significant growth in 457 Visa usage or 'widespread rorting' of the system.

SACOME would contend that based on these facts that employer sponsored migration is needed and an effective way to address shortages, especially in the shorter term 'construction phase' of mining when relatively large amounts of skilled labour is needed. The vast amount of workers in the mining industry are Australian residents with 2,430 temporary visa applications representing only 0.9% of the direct Australian workforce.

SACOME has no information regarding the efficiency or otherwise of the administration of the current employer sponsored migration processes.

Is the availability and access to pre-competitive geoscience information adequate to meet the needs of the resource exploration sector? Is the focus of Geoscience Australia and the state and territory surveys, in terms of their pre-competitive data collection, reflective of industry needs?

The Fraser Institute ***Annual Survey of Mining Companies*** was sent to approximately 4,100 exploration, development, and other mining-related companies world-wide. The survey represents responses from 742 of those companies, which has provided sufficient data to evaluate 96 jurisdictions. One of those jurisdictions is South Australia.

The Fraser Institute Survey of Mining Companies 2012/13 reports that (for South Australia) 81 percent of respondents in the survey believed the value of the State's geological database (the quality and scale of maps, ease of access to information etc) encourages investment in the mining industry.

One resource company representative commented, *"I think delivery of Geoscientific information is pretty good by both federal and state bodies. The govt needs to understand (and I think it does) that the mature exploration environment in Australia means the search for new deposits is much harder and much more expensive these days.* "

Is accessing capital a problem for resource exploration companies? Is there any evidence that Australian capital markets are not operating efficiently and effectively? How successful have Australian exploration companies been in accessing offshore capital markets?

In 2012, combined expenditure for exploration in minerals and petroleum in South Australia surpassed the $600m mark for the first time in SA's history. Petroleum exploration expenditure reached $291 million, more than double the 2011 figure, with the December quarter setting a record $122.3 million spend.

However, while $311.6m was spent on mineral exploration for the year, this was actually $1.2m less than in 2011 and greenfields exploration as a percentage of total spend is still low. In the September quarter mineral exploration consisted of $25.1m on new deposits and $41.8m on existing deposits.

To keep a steady pipeline of new projects, we need to spend more on greenfields exploration rather than existing deposits.

Regardless of the recent figures, many junior explorers report that they are have difficulty in raising funds for exploration. One member summed up the situation when he said:
"The capital markets have effectively been "closed" to juniors since around mid 2011, which is demonstrated by the lack of new floats coming on to the market. For listed companies, the absence of risk investors is obvious and is forcing many to raise small parcels of survival cash at steep discounts to share prices. Retail investors are also remaining on the sidelines."

SACOME continues to advocate for an Exploration Tax Credit scheme (Flow through Shares) to improve investment in junior exploration companies in Australia.