Queensland EXPLORATION SCORECARD

2020

10TH ANNIVERSARY EDITION -
"PAST, PRESENT & FUTURE"

queensland exploration council

AN INITIATIVE OF THE QUEENSLAND RESOURCES COUNCIL

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FOREWORD

WELCOME TO THE TENTH ANNUAL EXPLORATION SCORECARD

QEC is proud to deliver the QEC Exploration Scorecard for the tenth consecutive year. The Scorecard has measured industry sentiments towards exploration in Queensland since 2010-11 when it first set out to *'track Queensland's progress towards becoming an exploration leader by 2020'*.

This year's anniversary has encouraged us to reflect on the progress made and hurdles that have been overcome by the industry over the past decade.

This year's Scorecard puts emphasis on the systematic and operational improvements made over the years by the Department of Natural Resources, Mines and Energy, which since November 2020 has been renamed Department of Resources (DOR). In the Scorecard, these changes are reflected by the growth in industry's positive sentiment towards departmental processes and assistance. The first Scorecard also set itself the task of "monitoring performance", at a time when performance information on tenure processing timeframes was hard to find. A decade on, we have a Department which reports in near-real time.

The QEC acknowledge and appreciates the ongoing support DOR has shown in the production of the Scorecard. The Scorecard aims to represent industry sentiment as accurately as possible and over the years, the Department has taken the Scorecard outcomes into account when informing decision makers.

This outcome is also an indication of the importance of consistently monitoring the industry to identify issues and acknowledge accomplishments.

This is especially true this year. A year that has been largely impacted by COVID-19, which has affected people's lives and businesses on a large scale. For the exploration industry, this has meant operating under strict health regulations and reduced access to staff due to travel restrictions.

However, this has not halted exploration in Queensland. As commodity prices are recovering from the economic impact of the pandemic, we are looking into 2021 with optimism and can foresee a year where Queensland exploration continues to thrive.

For all ten years of the Scorecard, Queensland has scored a highly positive sentiment towards resource prospectivity. Queensland's extraordinary geology continues to lure explorers to stay in the field with the promise of that next big find.

Looking into the future the QEC will continue to promote the great resources potential in Queensland and encourage investment toward Queensland exploration. The sector's stakeholders are looking for an increasing focus on Environmental, Social and Governance (ESG) performance. Transparent accountability on ESG issues is the sector's best hedge against future regulatory impositions.

QEC is looking forward to another ten years of thriving exploration in Queensland and we will continue to deliver the QEC Exploration Scorecard for years to come.

I. Macfarlane

The Hon. Ian Macfarlane
Chief Executive Officer
Queensland Resources Council

Kim Wainwright
Chair
Queensland Exploration Council

December 2020

PUTTING THE SCORECARD INTO CONTEXT

2020 THE SCORECARD'S 10TH ANNIVERSARY *"PAST, PRESENT AND FUTURE"*

This year marks the ten-year anniversary of the QEC Exploration Scorecard. The Scorecard has tracked the ups and downs of Queensland's exploration industry – from its strong recovery post 2008 Global Financial Crisis, to challenges faced by the global pandemic in 2020.

As outlined in the first Scorecard, the purpose was to facilitate exploration leadership in Queensland. A decade of scorecards have reported real progress. Out of 13 Scorecard categories measured since 2010, 12 have improved. In 10 years, 5 categories have gone from a net negative to a net positive score. The Queensland Government has achieved major improvement across the government-related categories – departmental assistance, exploration permit process and access to geoscience data and land available for exploration.

The first Scorecard was born of mutual frustration. The industry struggled to get reliable information on how tenure applications were progressing, and the Department lacked a framework to implement procedural reforms to address rampant criticisms. I am proud of the role that the Scorecard has played in focusing constructive feedback into a driver for improvement.

Successive editions of the Scorecard have objectively recorded the performance dividends which have flowed from this close working relationship. I'd like to thank Departmental leaders for the trust that they have placed in this process and to acknowledge the calibre of the Departmental staff each year delivering invaluable input towards the development of the Scorecard and producing the maps seen in each edition of the Scorecard.

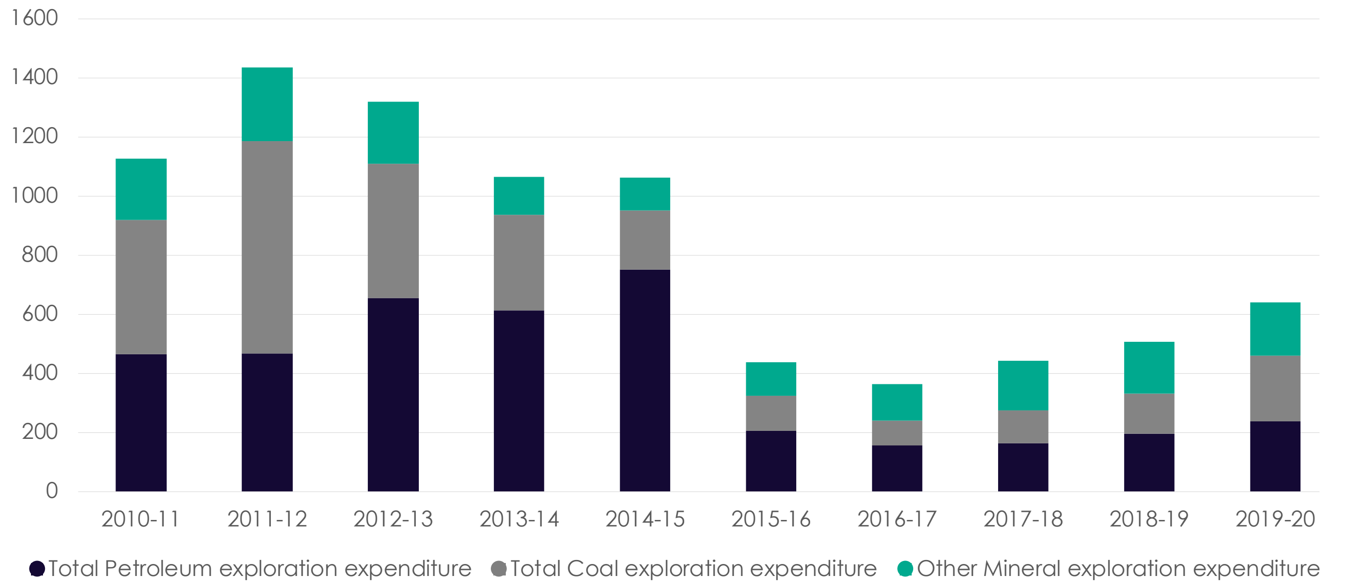
In the Scorecard's first year, explorers reported an inefficient exploration permit process and negative sentiment towards government assistance. DOR has worked with industry to make a series of administrative changes over the years, improving processes and providing increased industry support – since 2010 the industry sentiment towards exploration permit process has progressed from extremely negative to one of the brighter spots in Queensland exploration.

Throughout the Scorecard's history some categories have remained positive, whilst others have been persistently negative – with policy uncertainty, environmental regulations and conduct and compensation agreements recording a low sentiment score. In June Queensland Resources Council (QRC) released the *2020 Streamlining Report*, making four core recommendations towards streamlining application processes in the resource sector. QEC's hope is that the Streamlining Report helps to deliver the next generation of improvement and reform.

While activity levels can be volatile, the Queensland exploration industry has remained resilient throughout economic downturns and market uncertainty. Queensland's abundant resource opportunities are reflected in the Scorecard, with resource prospectivity and endowment being among the highest scoring sentiments year after year.

Resource prospectivity and endowment is a central driver for exploration activity. For most of the past 10 years exploration expenditure in Queensland has been robust, apart from the drastic decrease in expenditure between 2015-17. Over the past 3 years exploration expenditure has increased 77% since the 2016-17 low. The following chart depicts exploration expenditure over the past 10 years.

CHART: EXPLORATION EXPENDITURE IN QUEENSLAND, 2010-20

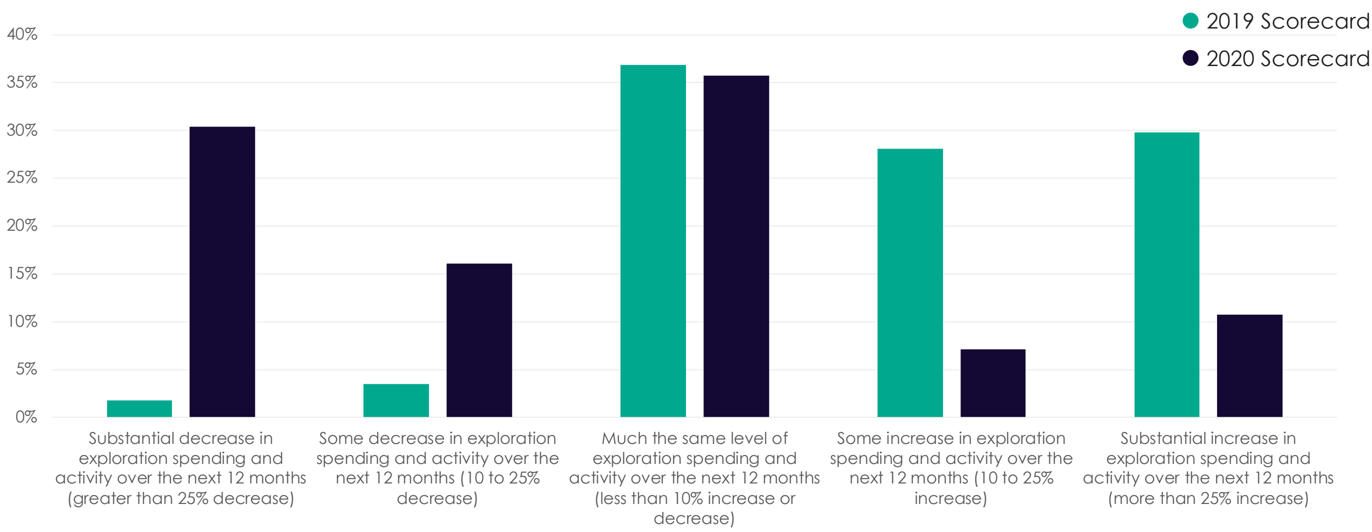


Source: ABS 5368.0

Unique to this year is COVID-19's impact on the industry's plans. Many exploration and drilling companies reporting financial losses, limited access to investment capital and logistics issues due to travel restrictions.

Commodity markets were hard hit in the initial months of the pandemic; however, commodity prices are starting to recover. Gold is trading at a similar price to its 2010 peak, resembling the recovery from the GFC. Despite COVID-19, exploration activity in Queensland has increased and over half of explorers expect to maintain or increase activity or expenditure over the next 12 months as indicated in the chart below.

CHART: 12 MONTH OUTLOOK FOR EXPLORATION EXPENDITURE, 2019-20



For the 2020-21 financial year, 46% of companies expect to decrease exploration spending and activity. This compares with 18% of explorers which expect to increase their exploration expenditure and activity. The anticipated growth in the 2019 Scorecard largely occurred in 2020. In that light, it is promising that this year, 35% of respondents estimate the same level of activity and expenditure as last year, which was a strong year for exploration in Queensland. These 2020 expectations bode well for 2021.

The largest transformation recorded over the Scorecard's 10 years is the increasing focus on Environmental, Social and Governance (ESG) as investors' expectations extend beyond healthy profits. Cultural heritage regulations and Native Title have progressed from having an extremely negative sentiment score in the first few years of the Scorecard, to recording a near neutral score this year. Since 2015 the Scorecard has monitored the industry's perception of their social license to operate, the score over the last three years has been substantially more optimistic than the first three years.

Moving forward, it is imperative that the sector makes ESG a focus to ensure the long-term sustainability of the industry. Recent developments suggest that this is generally recognised by the industry and industry partners, and the Scorecard is likely to record related changes in coming years.

Another significant change over the life of the Scorecard has been the opportunity to work with the Australian Drilling Industry Association (ADIA). For the last 4 years, the Scorecard has reported separately on the sentiment of drillers compared with explorers. The old saying when exploration sneezes, drilling catches pneumonia may not be entirely suited to a year of pandemic, but the truism rings true. The drilling industry suffers more volatility in demand and activity than exploration, so the opportunity to work with Peter Hall and his members has been invaluable.

As Chair of the Working Group I would like to extend a big thank you to all Scorecard Working Group members, listed below, particularly those members that have been here with me from the beginning a decade ago – Stephen Kelemen and John Briggs. Production of the Exploration Scorecard is only possible due to their expertise and enthusiasm for Queensland exploration. I want to acknowledge the constructive engagement and professionalism of the Department of Natural Resources, Mines and Energy, which is now Department of Resources, as well as the work of the QRC secretariat in preparing the Scorecard.

I would also like to thank all the participants in this year's Scorecard survey. Without their valuable time and industry insights, this Scorecard would just be a pile of dry statistics.

Euan Morton
Chair
QEC Exploration Scorecard Working Group

MEMBERS OF THE QEC SCORECARD WORKING GROUP 2020				SUPPORT	
Euan Morton (Chair)	Synergies Economic Consulting Pty Ltd	Tony Knight	Geological Survey of Queensland, Department of Resources	Andrew Barger	Queensland Resources Council
John Briggs	Ashurst Australia	Roger Leaning	Morgans Financial Limited	Tom Cunningham	Queensland Resources Council
John Bruce	Bruce Resource Consultants	Brett O'Donovan	Consultant	Katie-Anne Mulder	Queensland Exploration Council
Peter Hall	Australian Drilling Industry Association	Darren Rutley	Santos Ltd	Samantha Nasternak	Queensland Exploration Council
Todd Harrington	Whitehaven Coal Limited	Laura Steele	Department of Resources	Camilla Sorensen	Queensland Exploration Council
Stephen Kelemen	Queensland Exploration Council	Kim Wainwright	Xplore Resources and Queensland Exploration Council		
Dieter Kluger	Department of Resources	Darren Walker	U&D Mining (Australia) Pty Ltd and Queensland Exploration Council		

THE SCORECARD'S STRUCTURE

This year's Scorecard scope covers the 2019-20 financial year (1 July 2019 to 30 June 2020).

It retains the layout of previous years with a focused analysis of key exploration indicators. The Scorecard reflects the assumption that the level of exploration activity is broadly driven by:

- Queensland's resource prospectivity and endowment;
- the price and outlook for key commodities;
- explorer and investor confidence; and
- policy and regulatory stability.

This year the Scorecard also measures the impact of COVID-19 related issues.

As the market drives commodity prices, the Scorecard concentrates on those lead indicators that can be influenced – namely, explorer and investor confidence and access to the essential factors of progressing to further development and production. Outcomes or lag indicators that measure actual exploration success are also included. Figure 1 below shows the Scorecard structure.

FIGURE 1: SCORECARD STRUCTURE

LEAD INDICATORS – FACTORS THAT DRIVE EXPLORATION ACTIVITY AND PERFORMANCE						LAG INDICATORS – MEASURING ACTUAL SUCCESS
Resource prospectivity (section 2) **Commodity prices** (section 3) **Political stability**	+	**Government geoscience** (section 4.1) **Regulatory and policy stability** (section 4.2) **Operating and investment sentiment** (sections 4.3 & 4.4)	+	**Access to factors of production** **Tenure performance**	=	**Exploration success** **Exploration dollars spent** (section 6) **Market capitalisation movements** (section 7)

Source: QRC

PERFORMANCE SUMMARY

LEGEND

- Good (green)
- No significant impediment (white)
- Cause for concern (orange)
- Significant problems (red)

THE QUEENSLAND EXPLORATION SECTOR, 2011-2020

Year to June...

LEAD INDICATORS – DRIVERS OF FUTURE ACTIVITY AND PERFORMANCE	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Resource prospectivity and endowment (Section 2) • Queensland is home to a host of highly prospective coal, minerals and gas resources.	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Commodity prices (Section 3) • Base and precious metals prices overall have declined moderately over 2019-20 financial year. However, towards the end of the financial year prices were increasing again and gold trading at a record high price.	Good	Good	No significant impediment	Cause for concern	Significant problems	Cause for concern	Good	Good	No significant impediment	No significant impediment
• The thermal and metallurgical coal benchmark prices went down 30% from last year. Thermal coal is trading at the same price as 2014-15 and metallurgical coal has reached a 3-year low.	Good	Good	No significant impediment	Cause for concern	Significant problems	Significant problems	Good	Good	Good	Cause for concern
• Average Japanese LNG spot price have decreased 45% in 2019-20, reaching a 6-year low. Most LNG exports are sold under contracts linked to the price of oil with a lag of several months, with Brent oil price reaching a decade low in March/April. Domestic gas sold under long term contracts generally have prices agreed between the producer and customer without the volatility of being oil linked.	Good	Good	Cause for concern	Significant problems	Significant problems	Significant problems	Cause for concern	No significant impediment	No significant impediment	Cause for concern
State government geoscientific funding and activities (Section 4.1) • Queensland's pre-competitive geoscience is continuing to deliver valuable data to Queensland explorers. Base expenditure for the Geological Survey of Queensland in 2019-20 was steady at $6.5 million. GSQ is now in its final year of the $27 million, four-year Strategic Resources Exploration Program. The major system improvements in recent years has been a success story for the Government. DOR's "Geoscience Data Modernisation Project" is making reporting and data management more efficient.	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Regulatory and policy stability (Section 4.2) • Unfavourable increase in regulatory control with petroleum royalty regime and new volume model for calculating royalty (increased gas royalties). • No improvements from unfavourable increase in regulatory control seen in 2018-19 concerning native title considerations and uncertainty around financial provisioning and rehab framework. • Renewal of exploration rights and work programs saw reduction in regulatory control. The QRC Streamlining report was released mapping out a path for improvement in processing applications.	Cause for concern	Cause for concern	Cause for concern	Cause for concern	Cause for concern	Cause for concern	Cause for concern	Cause for concern	Cause for concern	Cause for concern
Operating and investment sentiment (Section 4.3 and 4.4) • 6 out of the 16 factors showed a net positive sentiment in Queensland. • 12 out of 16 factors improved towards a more positive sentiment from last year. • This year, sentiment was overall more positive than previous years. This is despite the impacts from COVID-19 issues.	Cause for concern	Cause for concern	Cause for concern	Cause for concern	Cause for concern	Cause for concern	No significant impediment	Good	Cause for concern	Cause for concern

LEGEND

- Good
- No significant impediment
- Cause for concern
- Significant problems

Year to June...

LEAD INDICATORS CONTINUED	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Tenure performance (Section 5) • Industry sentiment towards exploration permit processes increased this year and for the first time in the scorecard's history this category receives a net positive sentiment. The average time from closing of the tender process to the award of preferred tender status has improved from 5.5 months in 2018 to 3.6 months in 2020[1]. • During 2019-20, the Department's tender release schedule included 33 areas for oil and gas and 7 for coal.	No significant impediment	Cause for concern	Cause for concern	Good	Good	Good	Good	Good	Good	Good

LAG INDICATORS - EXPLORATION SUCCESS	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Mineral exploration (Section 6) • Minerals exploration in Queensland continues to expand, with major focus on the North West and North East. • In 2019-20 Queensland's mineral exploration expenditure was $403.4 million, increasing 29% from 2018-19.	No significant impediment	No significant impediment	No significant impediment	Cause for concern	Cause for concern	Significant problems	Cause for concern	Cause for concern	No significant impediment	No significant impediment
Petroleum exploration (Section 6) • In 2019-20 there were 33 petroleum tender areas released by DOR. The areas were located in North West Queensland and across the Bowen, Surat, Adavale and Galilee basins. • In 2019-20 Queensland petroleum exploration expenditure was $236.9 million, increasing 22% from 2018-19.	Good	Good	Good	Good	Good	Significant problems	Significant problems	Cause for concern	No significant impediment	No significant impediment
Market capitalisation movements (Section 7) • The S&P/ASX Index increased by 3.6% from last year. The QEC Exploration Index increased by 1%. The Deloitte Explorer and Resources Index decreased by 16%. The economy dropped drastically in March 2020 but has been rapidly recovering since.	Good	Cause for concern	Significant problems	Cause for concern	Cause for concern	Cause for concern	Good	Good	Cause for concern	Cause for concern

[1]Department of Resources

2.0 RESOURCE PROSPECTIVITY

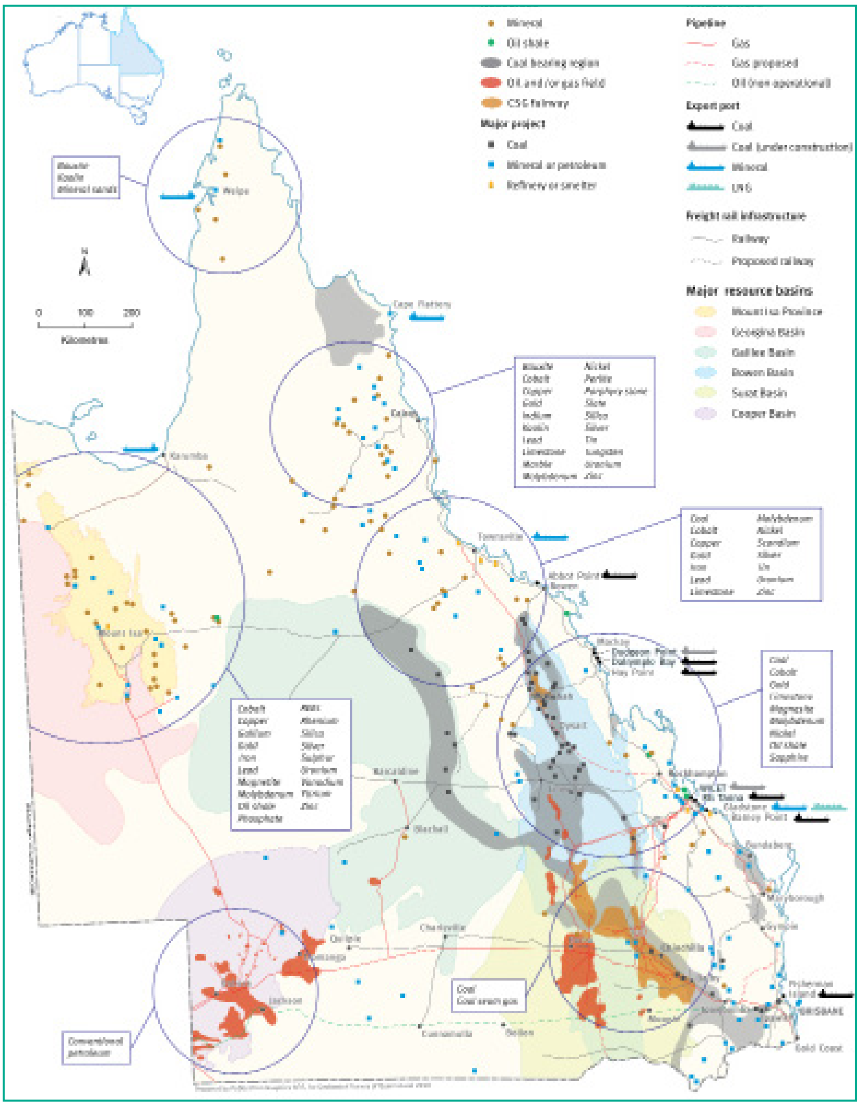


FIGURE 2: QUEENSLAND'S RESOURCE PROSPECTIVITY
Source: Spatial and Graphic Services, Geological Survey of Queensland 2020

Resource prospectivity is an important driver of exploration activity and a key indicator for investors. Queensland has a rich endowment of diverse resources; highly prospective deposits for base and precious metals alongside significant endowments of coal and gas can be found throughout the State. This is shown in the map to the left.

Queensland has a long history of oil and gas with Australia's first gas discovery at Roma in 1900 and Australia's first commercial oil field with Moonie discovered in 1961. In the South-West corner of Queensland, in the Cooper and Eromanga Basins, the first gas discovery was in the late 1960's with production commencing through Ballera gas plant in the mid 1990's, and oil was discovered at Jackson in 1981. This led to a significant oil province with ongoing exploration and production. From the 1990's through to current time a world-class coal seam gas province has been established in the Surat and Bowen basins with exploration and development continually ongoing. The Galilee Basin in central Queensland also hosts both coal seam gas and conventional gas discoveries. Shale gas has been discovered in the South Nicholson Basin in far north-west Queensland.

Queensland is home to several high-quality coal resources, which are in demand across the world. Queensland's metallurgical coal is amongst the highest quality in the world and is in high demand among steel-producing countries around the world. The Bowen Basin contains most of the State's hard metallurgical coal. Thermal coals are mined from the Clarence-Moreton and Surat basins in the south-east of the State with further developments progressing in the Galilee Basin.

North West Queensland is home to one of the most prospective mineral regions in the world. The region has significant potential to provide not only base metals like copper, zinc and lead, but also critical minerals used for batteries and other new technologies and defence systems. As global demand for critical minerals increases, the North West's rich prospectivity could establish Queensland as a key region for exploration investment.

Indeed, Queensland's world-class bauxite deposits in Cape York supplies refineries in Gladstone and overseas, while Queensland's North West Minerals province supplies several base metals and new economy minerals to Townsville and beyond. Meanwhile, Queensland has enjoyed a long history of gold exploration and mining with resources scattered across the state.

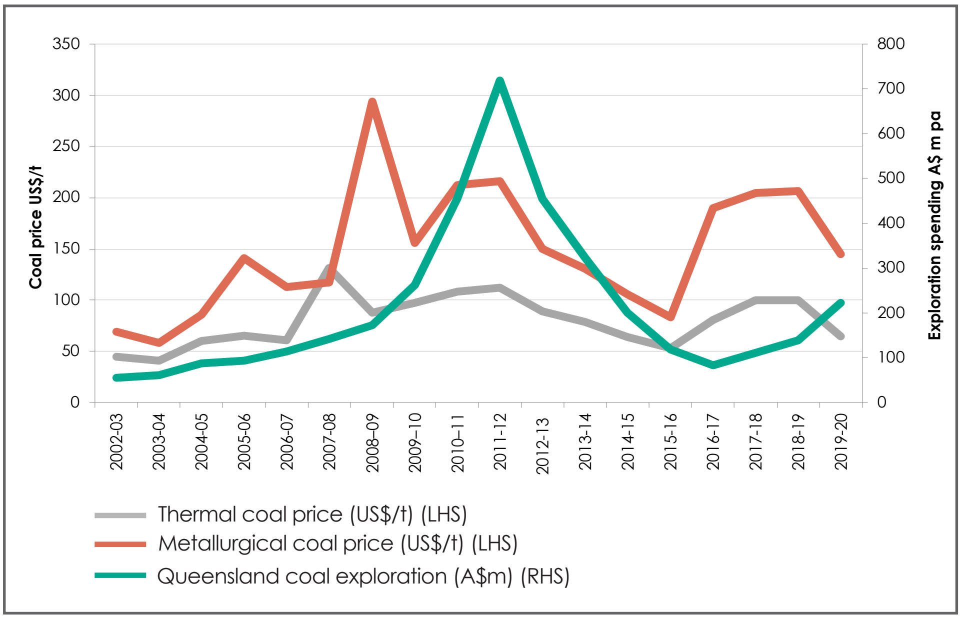
The explorer sentiment towards Queensland's resource prospectivity has remained significantly positive for all ten years of the QEC Exploration Scorecard.

3.0 COMMODITY PRICES

Commodity prices are a significant driver of exploration activity in Queensland. Charts 3.1 – 3.4 show the relationship between average global benchmark prices for coal, gold, copper, and LNG compared with Queensland exploration expenditure for each commodity since 2002.

This year commodity prices have been largely impacted by a decrease in demand due to global restriction as a result of COVID-19. The impact of the pandemic has had a major impact on the global economy. However, the economy will make a swift recovery as markets resume regular business. Base and precious metal prices have already recovered well, with gold trading at historically high prices and copper trading at the same price as before the pandemic. Coal and LNG is expected to have a slower recovery process[2]. The lower than usual commodity spot price is not reflected in exploration spending. In Queensland coal, petroleum, gold and copper exploration spending are all continuing the upward trajectory seen over the past few years. Petroleum exploration is largely gas focused buoyed by the supply demand profile of the Eastern Australia domestic gas market.

CHART 3.1: GLOBAL AVERAGE BENCHMARK COAL PRICES AND COAL EXPLORATION SPEND IN QUEENSLAND, 2002-03 TO 2019-20



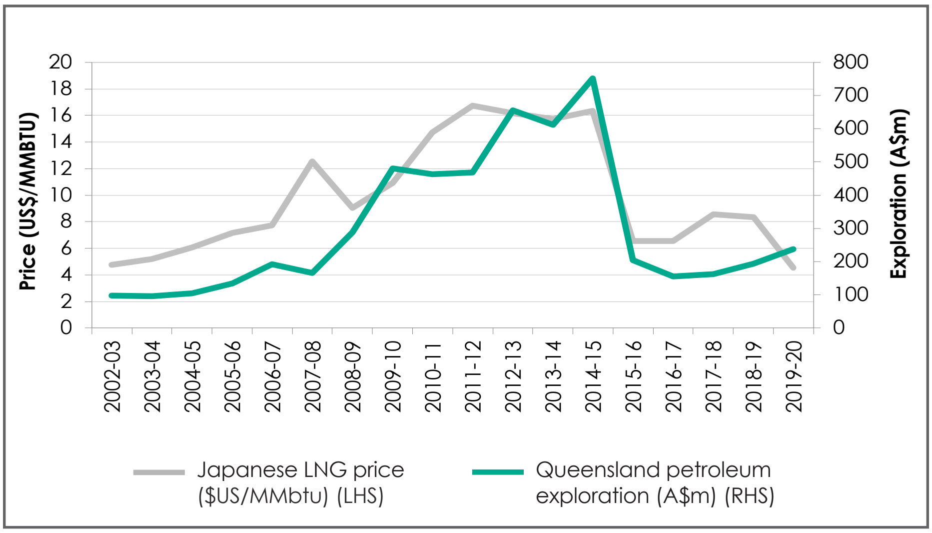
Source: Office of the Chief Economist, Resources and Energy Quarterly Sept 2020, ABS 5368.0

In 2019-20 the key coal benchmarks did not maintain the gains seen over the previous three years. Metallurgical coal prices dropped 30% and the thermal coal price dropped 36% from last year. In the first half of 2019-20 financial year coal was already trading at a lower price than the previous year, the impact of decreased demand due to COVID-19 and geopolitical tension has enhanced the downward trajectory of coal prices[3]. However, Metallurgical Coal is performing much better than thermal coal, trading well above the 2015 low. Coal prices are predicted to recover through 2021-22[4].

Despite the drop in coal prices, Queensland's coal exploration spending in 2019-20 has continued to increase for the third consecutive year, increasing by 61% from last year. This is the highest coal exploration spending in Queensland since 2014-15. This increased spending occurred as COVID-19 measures were put in place by the Queensland Government such as introducing variations for exploration work programs due to COVID-19 impacts.

[2] Office of the Chief Economist, Resources and Energy Quarterly Vol. 10 No. 3 [3] Office of the Chief Economist, Resources and Energy Quarterly Vol. 10 No. 3:p.41-63 [4] Office of the Chief Economist, Resources and Energy Quarterly Vol. 10 No. 3:p39

CHART 3.2: GLOBAL AVERAGE BENCHMARK LNG PRICES AND QUEENSLAND PETROLEUM EXPLORATION SPEND, 2002-03 TO 2019-20



Note: Petroleum exploration expenditure includes appraisal activities, but excludes developmental and production activities.

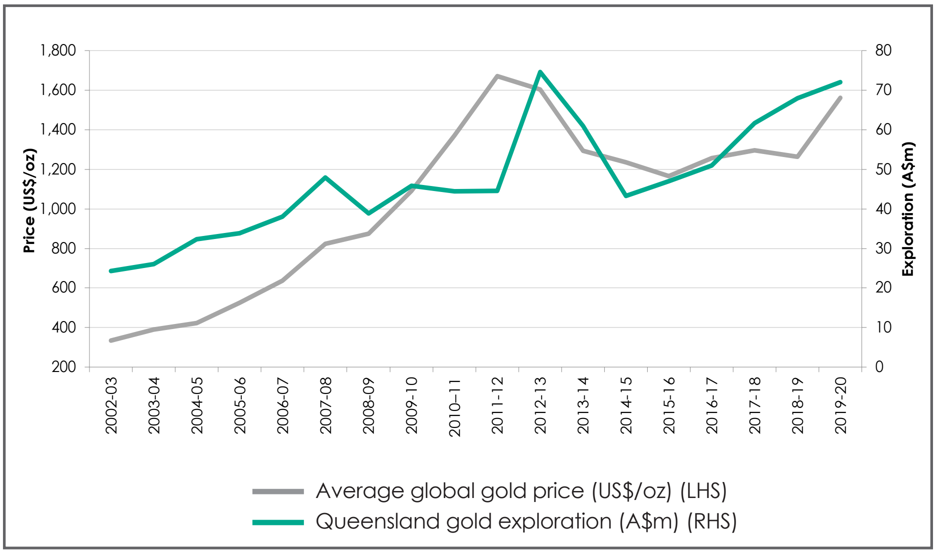
Source: METI, ABS 8412.0

2019-20 petroleum exploration in Queensland continues to improve from previous years, with a 22% increase in exploration spending. Queensland's petroleum industry has grown over the past eight years, with LNG becoming Queensland's second largest international export at $13.85 billion in the 2019-20 financial year[5]. The Queensland Government as part of the 2020 Queensland Exploration Program[6] released 6,800 km² of land via competitive tender and in June 2020 an additional 1,500 km² of land was released for gas exploration. This included four gas exploration areas across 872 km² released solely for supply to the domestic market.

COVID-19's impact on demand has driven the Scorecard's benchmark Japanese LNG price to a 20-year low, with prices continuing to decrease in the 3rd quarter of 2020. According to EnergyQuest, Australia's east coast gas demand was steady through the first six months of 2020, while Queensland LNG feedstock demand decreased by 14% from January to June 2020. Gas flows from Queensland to southern states are increasing in volume and Queensland will continue to play a critical role in supplying gas to southern states[7].

To support domestic market gas supply, DOR has released some areas of land for gas exploration under the condition it will only be produced for supply to the Australian market. This initiative aims to stimulate additional petroleum explorers in Queensland as well as contributing towards Australian energy security.

CHART 3.3: GLOBAL AVERAGE BENCHMARK GOLD PRICES AND QUEENSLAND EXPLORATION SPEND, 2002-03 TO 2019-20



Source: Office of the Chief Economist, Resources and Energy Quarterly, Sept 2020, ABS 5368.0

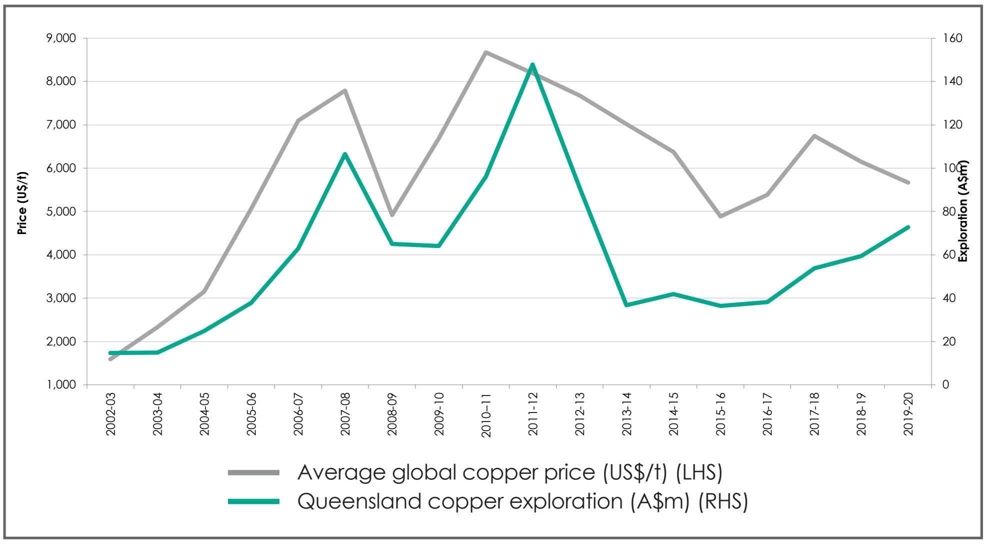
Queensland is on its sixth consecutive year of gold exploration growth – up 66% from 2014-15 and growing a further 6% from last year. Gold prices have soared during COVID-19. Looking beyond, the outlook for further gold exploration is promising – for the 3rd quarter of 2020, gold was trading at historically high prices.

Historically during economic downturns gold prices tend to surge—functioning as an inflation hedge against the falling value of currencies. However, gold prices were already increasing in the first half of the 2019-20 financial year – with 14% growth from the previous 2018-19 financial year.

Gold is also applied in new technologies, driving up the commodity's demand. It is now considered a "New Economy Mineral" by the Queensland government, with this year seeing several gold explorers receiving government funding of up to $200,000 as part of the collaborative exploration grant[8].

[6]DOR 2020 Queensland Exploration Program [7]Energy analysis and strategy, copyright © 2020 EnergyQuest [8]DOR collaborative exploration grants

CHART 3.4: GLOBAL AVERAGE BENCHMARK COPPER PRICES AND QUEENSLAND EXPLORATION SPEND, 2002-03 TO 2019-20



Source: Office of the Chief Economist, Resources and Energy Quarterly, ABS 8412.0

In 2019-20, Queensland copper exploration expenditure achieved its fourth consecutive year of growth—this feat hasn't been achieved since the early 2000's. Copper is a crucial component in renewable energy production and storage, electric cars and technology. As a New Economy Mineral, several copper explorers received government funding up to $200,000 as part of the Queensland Government's Collaborative Exploration Grant.

The long-term outlook for copper is strong, however market prices have seen an 8% decrease from the previous year due to COVID-19.

Copper's average spot price decreased by 8% over the year. Nevertheless, copper prices have been recovering since the initial impact by COVID-19, with a 10% price increase in June 2020. Looking beyond the Scorecard's scope, copper prices have continued to surge into the final quarter of 2020, with prices now trading above the 2017-18 peak.

KEY FINDINGS

- Exploration expenditure for all four key commodities (coal, petroleum, gold and copper) has increased in 2019-20
- Queensland coal exploration spending continues to grow this year despite plummeting coal prices – edging towards the 2015-16 low (chart 3.1).
- Queensland petroleum exploration expenditure increased by 22% in 2019-20. LNG prices including Japanese benchmark LNG price have been steadily decreasing, seeing a record low in the Scorecards' history (chart 3.2). However, this is not necessarily a reflection of the domestic gas market which requires additional supply sources through the 2020's.
- Gold exploration spending and gold prices have continued to grow as the global economy is impacted due to COVID-19 (chart 3.3).
- Queensland's copper exploration spending continues its upsurge for the fifth consecutive year (chart 3.4).

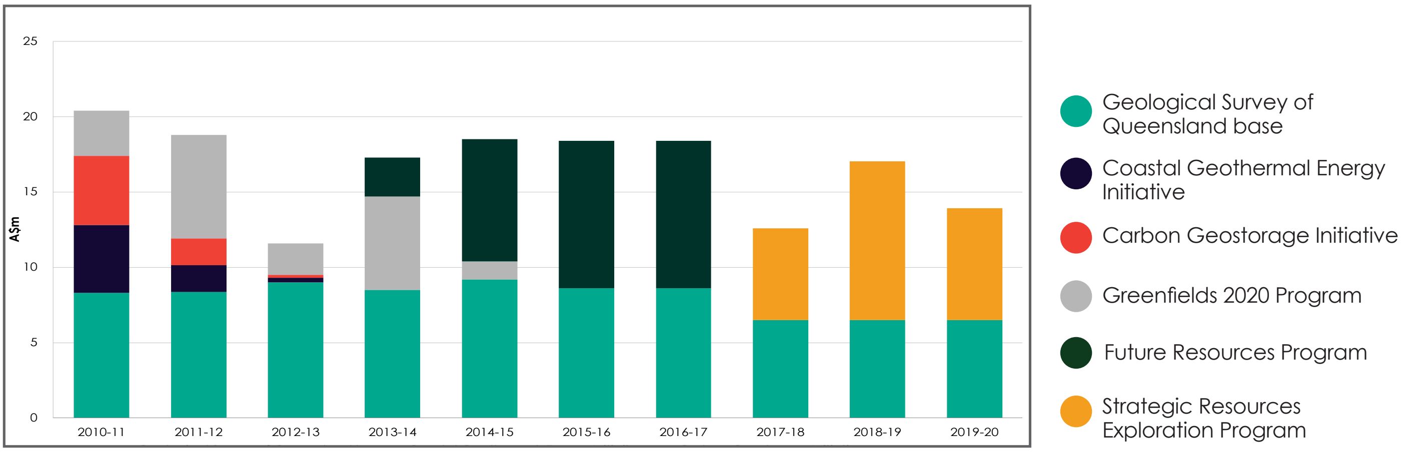
4.0 EXPLORER & INVESTOR CONFIDENCE

4.1 STATE GOVERNMENT GEOSCIENTIFIC FUNDING AND ACTIVITIES

Funding for pre-competitive geoscience activities is vital for the ongoing health of the sector. Total State government geoscientific funding and the components of that funding across the various programs is shown in Chart 4.1. Industry continues to advocate for a substantial and growing base level of funding for the Geological Survey of Queensland (GSQ).

The GSQ is now in its final year of its $27 million, four-year Strategic Resources Exploration Program. The Program includes activities to support resources exploration in north-west Queensland, including a range of pre-competitive data to support mineral exploration, a search for new gas resources in frontier basins, and modernisation of government geoscience data systems. It also includes targeted support towards drilling and non-drilling activities under the Government's much-lauded Collaborative Exploration Initiative.

CHART 4.1: TOTAL GEOLOGICAL SURVEY OF QUEENSLAND EXPENDITURES (A$M) 2010-11 TO 2019-20



Source: Department of Resources

Note: From 2017-18, a DOR internal restructure meant all IT-related resources moved to the State-wide business systems team. This accounts for the drop in base funding within GSQ, however the total funding and budgeted FTE's stayed on to service the Geological Survey.

KEY FINDINGS

- GSQ has made major advances towards enabling data-driven exploration in Queensland, with practical completion of its Geoscience Data Modernisation Project. The project has seen delivery of a world-leading data repository and now enables modern data analytics such as machine learning and artificial intelligence applications to exploration.
- As part of the modernisation project, GSQ launched its new GSQ Open Data Portal. Replacing the QDEX system, the Portal provides a single point of access to all of GSQ's open file geoscience data and company reports for the first time—allowing users to search for and download a wide range of Queensland geoscience datasets, company statutory reports and publications.
- GSQ's Collaborative Exploration Initiative continued to support the sector. Two rounds were offered, with a simplified approach no longer requiring matched funding witnessing a substantial uplift to 145 applications for the most recent round.
- GSQ work scope has strong focus on base and new economy minerals, with the latter including work with the University of Queensland to investigate the secondary prospectivity of tailings and low-grade ores in legacy mine sites.

4.2 REGULATORY AND POLICY STABILITY

This section provides a snapshot of the year-to-year regulatory changes from 2011 (baseline) as they relate to Queensland exploration activities. It aims to summarise complex regulatory changes for the 1 July 2019 to 3 June 2020 period as they affect exploration projects.

LEGEND

- 🟢 Favourable reduction in regulatory control occurred in that year
- ⚪ No change in regulatory control occurred in that year
- 🔴 Unfavourable increase in regulatory control occurred in that year

Types of exploration controls in Queensland	Changes between 2011 and 2012	Changes between 2012 and 2013	Changes between 2013 and 2014	Changes between 2014 and 2015	Changes between 2015 and 2016	Changes between 2016 and 2017	Changes between 2017 and 2018	Changes between 2018 and 2019	Changes between 2019 and 2020
A. Foundation requirements for exploration - processes that most holders of exploration permits must meet on application and continuously through the life of the tenure:									
Cultural heritage (Aboriginal and non-Aboriginal) • No regulatory change for exploration before 30 June 2020, but Juuken Gorge in WA (May 2020) will increase scrutiny for the whole industry.	⚪	⚪	⚪	⚪	⚪	⚪	⚪	⚪	⚪
• Application for environmental authority (this requirement was removed in 2013 in some circumstances)	⚪	🟢	⚪	⚪	⚪	⚪	⚪	⚪	⚪
• Application for exploration tenure (applications for coal subject to tender process in 2012 - minerals applications are unchanged)	⚪	⚪	⚪	⚪	⚪	⚪	⚪	⚪	⚪
• Application for exploration tenure (oil and gas rights subject to tender process)	⚪	⚪	🟢	⚪	⚪	⚪	⚪	🟢	⚪
Landowner compensation • Note ongoing negative industry feedback about aspects of the conduct and compensation agreement process.	⚪	⚪	⚪	⚪	⚪	⚪	🟢	⚪	⚪
• Native Title considerations	⚪	⚪	⚪	⚪	⚪	⚪	⚪	🔴	⚪
• Rehabilitation / remediation obligations	⚪	⚪	⚪	⚪	⚪	⚪	⚪	⚪	⚪
Renewal of exploration rights • Fixed terms on exploration tenures from 25 May 2020.	⚪	⚪	🟢	⚪	⚪	⚪	⚪	⚪	🟢
Administrative improvements in processing applications • QRC Streamlining Report maps out a path for improvement (June 2020).	⚪	⚪	⚪	🟢	⚪	⚪	⚪	🟢	🟢
B. Gateway controls on exploration – policies that present barriers to tenure in some areas:									
• Land regulated as 'Restricted Area'	⚪	⚪	⚪	⚪	⚪	⚪	⚪	⚪	⚪
• Land otherwise off limits for environmental reasons (e.g. National Parks and strategic environmental areas)	⚪	⚪	🔴	⚪	⚪	⚪	⚪	⚪	⚪
• Restrictions on exploration activity in other areas of regional interest (e.g. priority agricultural areas including strategic cropping areas, and priority living areas)				🔴	⚪	⚪	⚪	⚪	⚪
• Land subject to other third-party interests (e.g. new overlapping tenure regime commences for coal and gas (includes exploration), growing risk of land use conflicts with renewable projects)	⚪	⚪	⚪	⚪	⚪	🟢	⚪	⚪	⚪

LEGEND

🟢 Favourable reduction in regulatory control occurred in that year

⚪ No change in regulatory control occurred in that year

🔴 Unfavourable increase in regulatory control occurred in that year

Types of exploration controls in Queensland continued	Changes between 2011 and 2012	Changes between 2012 and 2013	Changes between 2013 and 2014	Changes between 2014 and 2015	Changes between 2015 and 2016	Changes between 2016 and 2017	Changes between 2017 and 2018	Changes between 2018 and 2019	Changes between 2019 and 2020
C. Conditioning controls on exploration - policies that impose additional conditions:									
• Applications and approvals to disturb native vegetation	⚪	⚪	⚪	⚪	⚪	⚪	⚪	⚪	⚪
• Applications and approvals to work in waterways	⚪	⚪	⚪	⚪	⚪	⚪	⚪	⚪	⚪
• Transfer duty – became payable in 2012 – farm-in agreements exempted in 2013	🔴	🟢	⚪	⚪	⚪	⚪	⚪	⚪	⚪
• In 2016, work programs halved. • In 2020, rent waivers were introduced and variations on work programs were available to acknowledge the impacts of COVID on operational plans.					⚪	🟢	⚪	⚪	🟢
D. Impacts on production (but indirectly relevant to exploration):									
• Ongoing uncertainty around Financial Provisioning and Rehabilitation framework.							⚪	🔴	⚪
E. Year-specific issues:									
• Uncertainties created in 2018-19 around the future legislative and regulatory effect of current policy decisions.								🔴	🔴
• Uncertainty created in 2019-20 around announcement of new petroleum royalty regime in the Budget on 12 June 2019 and new volume model for calculating royalty on 17 June 2020.								🔴	🔴

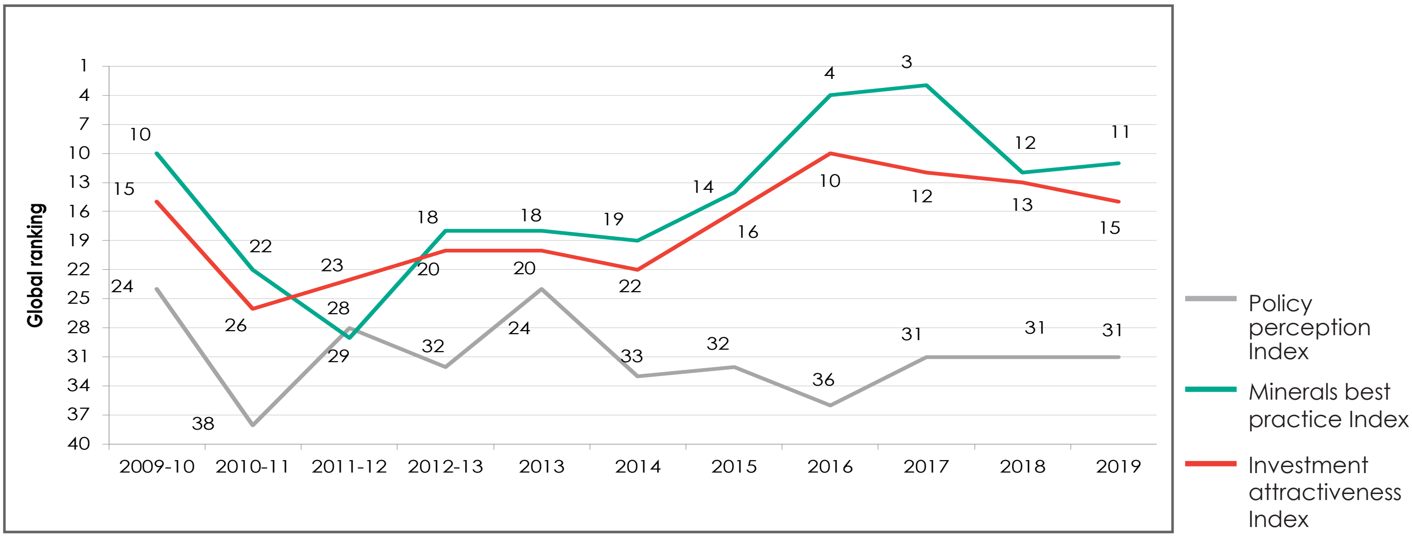
Source: Ashurst Australia and QRC

4.3 FRASER INSTITUTE'S ANNUAL SURVEY OF MINING COMPANIES 2019

On 25 February 2020 the Fraser Institute released its Annual Survey of Mining Companies 2019. The survey ranks 76 global jurisdictions on an Investment Attractiveness Index, which is scored based on policy and mineral resource perception. The 2019 survey ranks Queensland as number 15 out of 79 jurisdictions, dropping two spots from the previous year. Placing a spot behind Utah (14th) in the USA and followed by Ontario (16th) in Canada. Queensland also lost its position as the second most attractive investment destination in Australia; with this year seeing Northern Territory coming in as number 13 on the list.

The Investment Attractiveness Index is based on two factors. Firstly, the Policy Perception Index, which weights 40% towards the overall score. Secondly, the Best Practice Mineral Potential Index, which weights 60% towards the overall score. Queensland's ranking is presented below:

CHART 4.3: FRASER INSTITUTE – QUEENSLAND'S GLOBAL RANK 2009-10 TO 2019



Source: Fraser Institute

Minerals Best Practice Index measures the perceived mineral potential of each participating jurisdiction while assuming their policies are best practice. In the 2019 survey, Queensland ranked 11th, moving up one place on the list from the previous year. Within Australia, Queensland ranks behind Western Australia (2/76), Northern Territory (5/76) and South Australia (9/76). Queensland is the 4th most geologically attractive state/territory in the country and losing its spot as number 3 from last year to Northern Territory.

The Policy Perception Index measures the effects of government policy on investment in exploration and mining. For the third consecutive year, Queensland holds its rank as number 31 on the Policy Perception Index. In Australia, Queensland ranks as number four in this category, losing its spot from last year to Northern Territory which scored one-point higher than Queensland this year.

This survey shows, it is apparent Queensland's limitation for exploration and mining investment is policy driven and does not reflect the mineral potential of the state. This outcome is consistent with the 2020 Scorecard's negative sentiment towards policy perception (discussed further in section 4.4). 31% of participants in the QEC Exploration Sentiment Survey 2020 also partook in the Fraser Institute's Annual Survey of Mining Companies 2019.

4.4 OPERATING SENTIMENT

Companies were asked to indicate to what degree individual factors positively or negatively impacted the commercial objectives of their Queensland operations during 2019-20. Companies were also asked to respond to the same questions for the other Australian or overseas jurisdiction in which they are most active.

To enable comparisons across years, the Scorecard's 12 core factors have remained constant since the Scorecard began in 2011. Last year the Scorecard introduced a category for sentiment towards Queensland's royalty and tax rates. New to this year's Scorecard is a category for sentiment towards the impact of COVID-19.

The survey received 46 'Queensland' and 23 'Other jurisdictions' responses. Across the 2019-20 survey, the most common exploration targets were metallurgical coal (40%), base or precious metals (38%), thermal coal (26%), technology minerals (14%) and unconventional oil & gas (10%). Other targets include bauxite, industrial minerals, conventional oil and gas and uranium. Many of the responders had more than one exploration target. There was an especially large exploration target crossover between base metals and technology minerals, metallurgical and thermal coal, conventional and unconventional oil and gas.

The responses were combined into a single value by weighting each response. 'Strongly positive' (negative) responses were given a weighting of 1 (-1), 'positive' (negative) responses were given a weighting of 0.5 (-0.5) and 'not at all' responses were given a weighting of 0. For more details and a worked example, please see <u>here</u>.

INDUSTRY SENTIMENT SURVEY

The Exploration and Drilling Sentiment Survey was opened on 5 August and closed on 14 September. The full results for 2020 shows the range of issues that Queensland explorers must consider:

- **Six of the 16 factors** showed a net positive sentiment in Queensland. Two of the six were strongly positive:
  - ✓ Pre-competitive geoscientific data; and
  - ✓ Resource prospectivity and endowment.

- **Ten of the 16 factors** showed net negative sentiment in Queensland, with 5 of those being strongly negative:
  - × Access to investment capital;
  - × conduct and compensation agreements;
  - × COVID-19 related factors;
  - × environmental regulations;
  - × policy uncertainty.

- The ten-year trends for Queensland show an **improvement in sentiment** towards:
  - ✓ exploration permit processes;
  - ✓ departmental assistance; and
  - ✓ pre-competitive geoscientific data.

CHART 4.4.1: COMPARING QUEENSLAND TO OTHER JURISDICTIONS, 2019-20

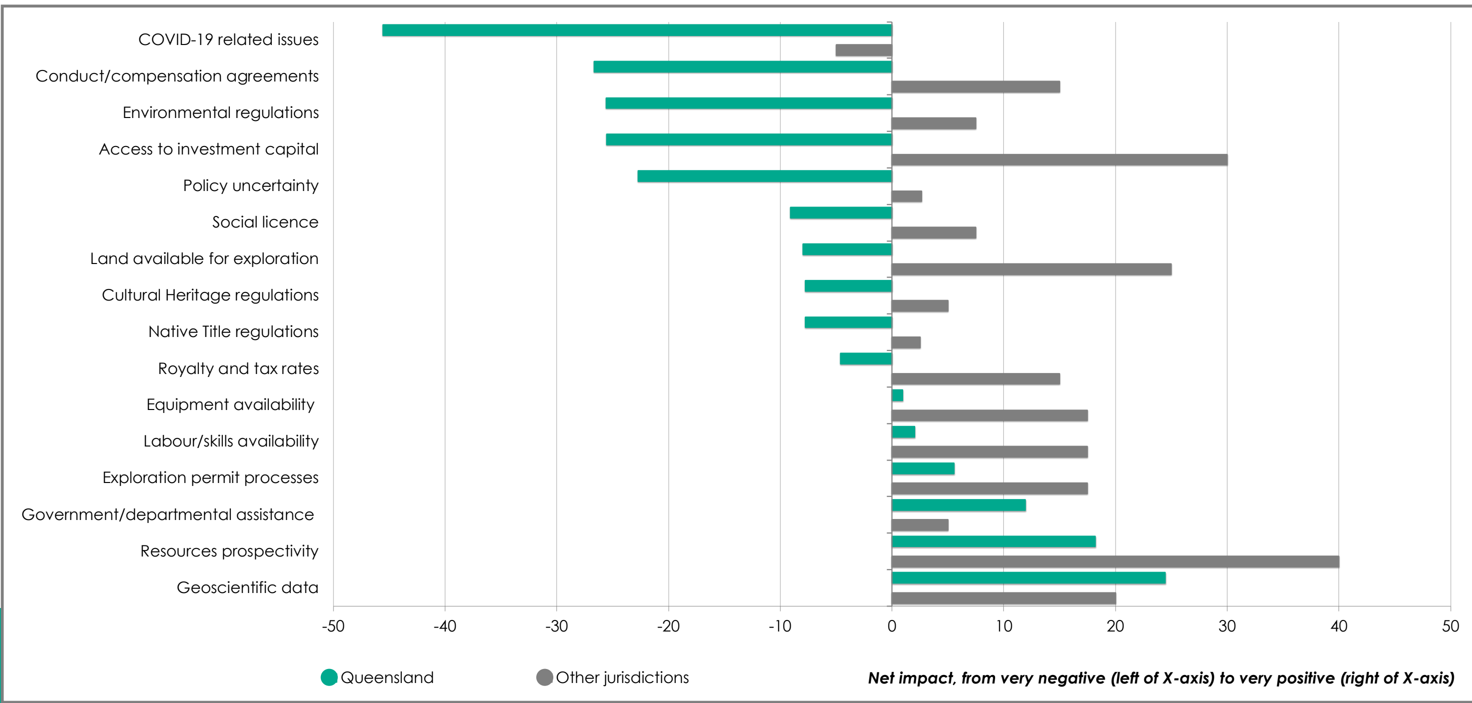
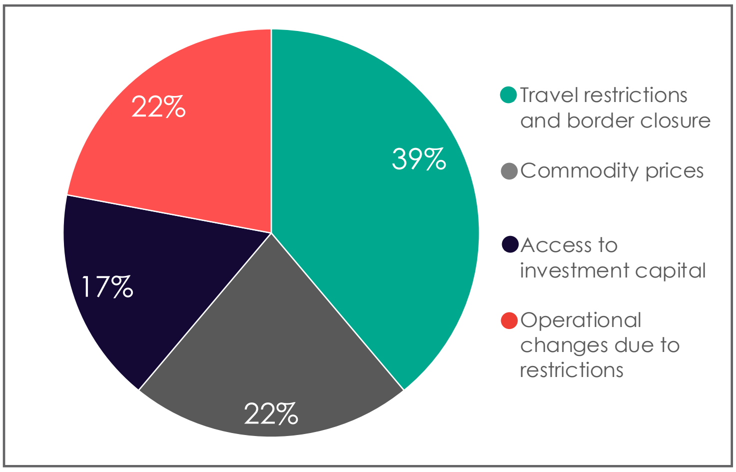


Chart 4.4.1 lists the sentiment questions from the least positive to the most positive. For comparison, the results for the "Other jurisdictions" are shown. Typically, Queensland sentiment is more negative than in the rest of Australia and overseas.

It is worth noting that the extremely positive sentiment reflected in "Other jurisdiction" was this year largely driven by explorers operating in overseas jurisdictions with very few responses from other Australian jurisdictions.

CHART 4.4.2: COVID-19 RELATED FACTORS 2019-20



Overall, this category received a -45 sentiment score, the lowest sentiment score this year and one of the lowest sentiments recorded in the Scorecard's history. Unique to this year, the Scorecard measures the impacts of COVID-19 related factors on business operations. Government response measures implemented to protect society against the virus have had a major impact on business operations, logistics and cash flow. This is also the case for Queensland explorers, majority reporting that travel restrictions and Queensland border closure has limited their access to skilled personnel living interstate or abroad.

Explorers were significantly concerned by the impact COVID-19 had on overall commodity prices due to decreased demand and market uncertainty. Some companies in the coal industry have reported that it has had major impact on their revenue this year. Some explorers are reporting that raising investment capital has been challenging due to low commodity prices and market volatility.

Another concern amongst explorers are the operational changes that have occurred due to restrictions and COVID-19 guidelines – such as limited access to remote communities and social distancing on site. One company reported postponing their activities, commenting ***"Impacted prospecting operations to extent they required Cultural Heritage clearance - we postponed this work so as not to put any vulnerable Indigenous workers at risk".***

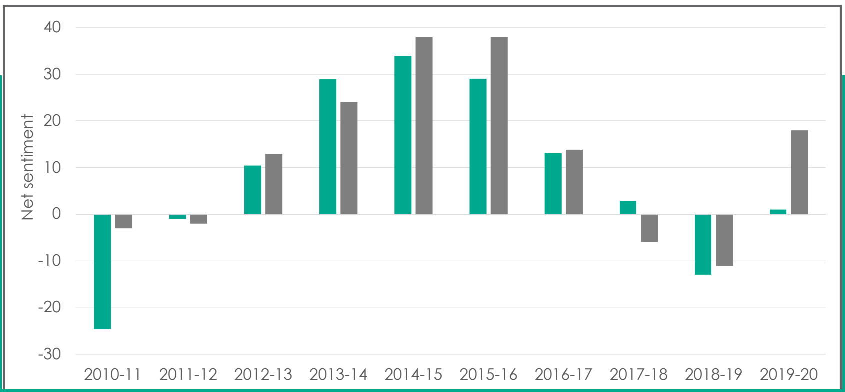
Having said this, 31% of responders put COVID-19 initiatives as part of the top three Government initiatives in 2019-20 that provided the most benefit to their company. Explorers applauded the government for recognising COVID-19 as an unprecedented event and for implementing supportive measures. A majority reported that fee and rent relief has benefited their operations during the challenging period. Some explorers reported receiving little or no assistance and reported major losses this year. It is worth noting that some COVID-19 initiatives were released after the survey was published and the results do not account for these changes.

LEGEND

Queensland

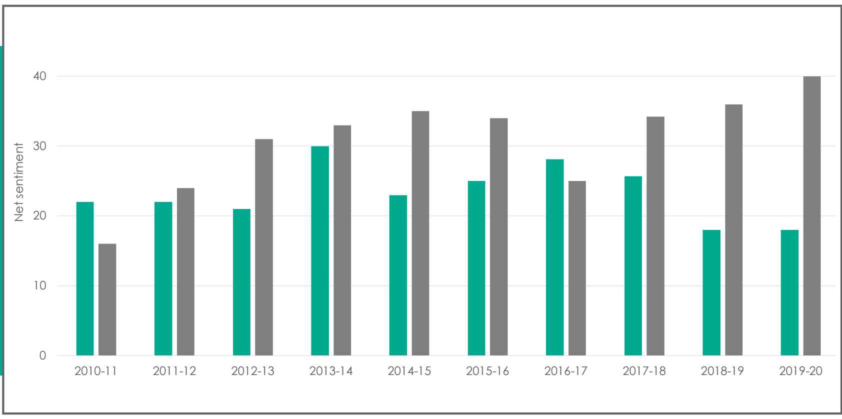
Rest of Australia

CHART 4.4.3: EQUIPMENT AVAILABILITY 2010-11 TO 2019-20



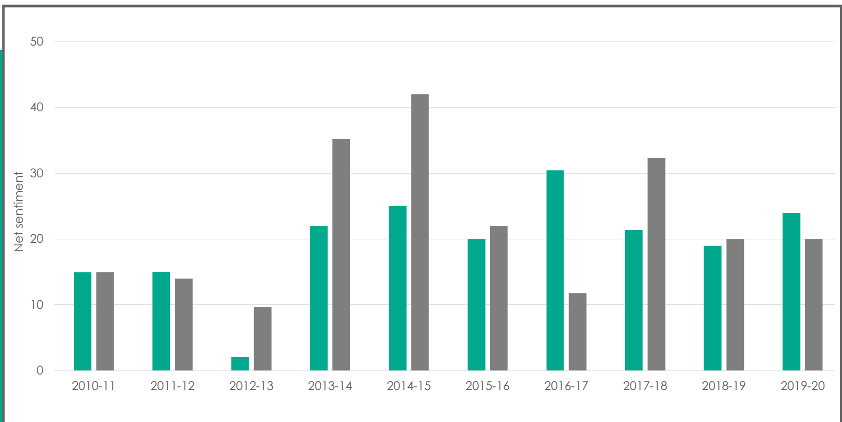
In a big shift from last year, the availability of equipment has increased significantly, now with a near neutral outcome. The Survey was active while many COVID restrictions were still in place, which may have influenced the answer at the time the participants responded to the survey. Anecdotal evidence suggest that this outcome does not truly reflect the equipment availability experienced by Queensland explorers. In the 2019-20 financial year members continued to express low levels of equipment availability in line with the 2018-19 financial year outcome. Considering that exploration activity has continued to increase and based on anecdotal evidence, the increase in sentiment this year is circumstantial due to the timing of the survey.

CHART 4.4.4: RESOURCE PROSPECTIVITY/ENDOWMENT 2010-11 TO 2019-20



Queensland's world-class resource prospectivity, with sentiment remaining positive for all 10 years of the Scorecard. The majority of participants continued to rate Queensland's resources prospectivity as high—it appears that some of the responses with milder support for Queensland's prospectivity were frustrated by the difficulty obtaining tenure in prospective areas rather than the resource prospectivity of Queensland more generally.

CHART 4.4.5: PRE-COMPETITIVE GEOSCIENCE DATA 2010-11 TO 2019-20



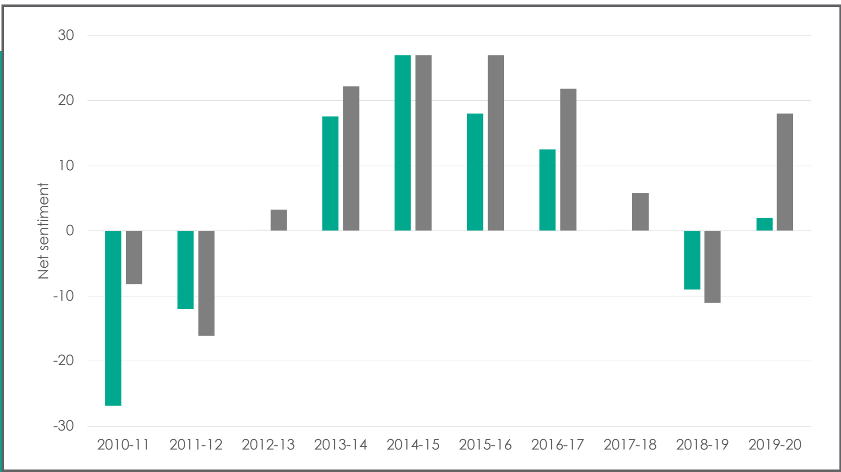
Pre-competitive geoscience data is necessary for attracting exploration dollars and remains a strength for Queensland. This year holds the highest sentiment score in this category since 2016-17. The survey results found 43% of participants placed the release of pre-competitive geoscience data by GSQ as part of the top three beneficial government initiatives for the year. One survey participant said ***"The release of new GSQ data and information has been an excellent initiative and extremely encouraging. The developments with the GeoResGlobe and new data/report portal are industry leading".***

LEGEND

Queensland

Rest of Australia

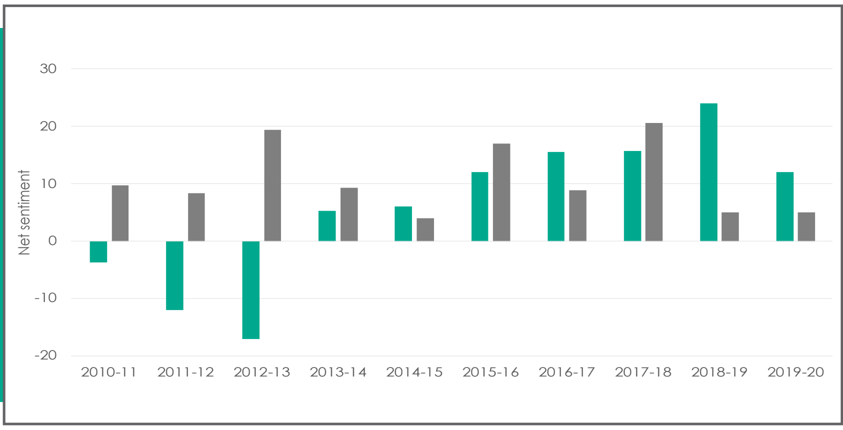
CHART 4.4.6: LABOUR/SKILLS AVAILABILITY 2010-11 TO 2019-20



Reflecting the changes seen in the equipment availability category, labour and skills availability has also increased tremendously from last year. It is a positive development as it reflects that there is an adequate number of skilled workers to carry out operations in the state for the time being. The biggest concerns amongst the survey responders was not directly regarding a skills shortage, rather the ability to access workers due to border restrictions and travel bans. This reflects the industry's reliance on sourcing skills interstate.

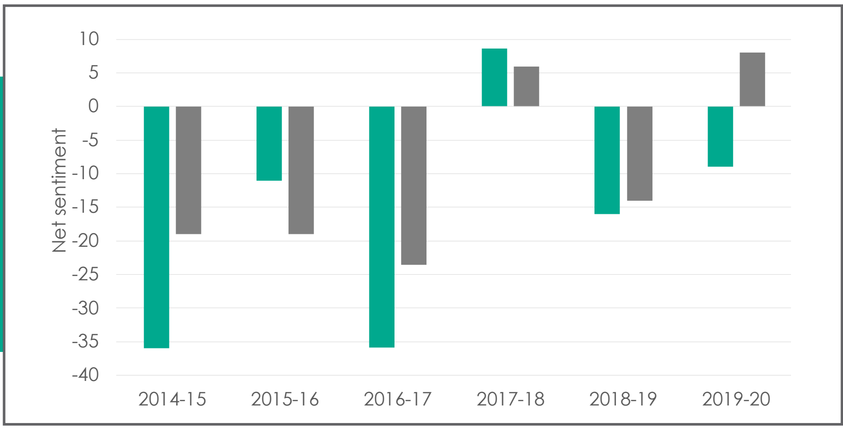
Note: Queensland sentiment in 2012-13 & 2017-18 was neutral (zero)

CHART 4.4.7: GOVERNMENT/DEPARTMENTAL ASSISTANCE 2010-11 TO 2019-20



Departmental assistance delivered a positive sentiment for its seventh year in a row. The overall score has decreased somewhat from last year's record high score. Queensland explorers are generally satisfied with the assistance the industry receives from DOR, with only 9% of survey participants ranking this category as one of their top 3 issues with a negative impact on commercial objectives. Over the 10 years of the Scorecard, the industry sentiment towards Departmental assistance has grown consistently.

CHART 4.4.8: INDUSTRY PERCEPTIONS OF SOCIAL LICENCE TO OPERATE 2014-15 TO 2019-20



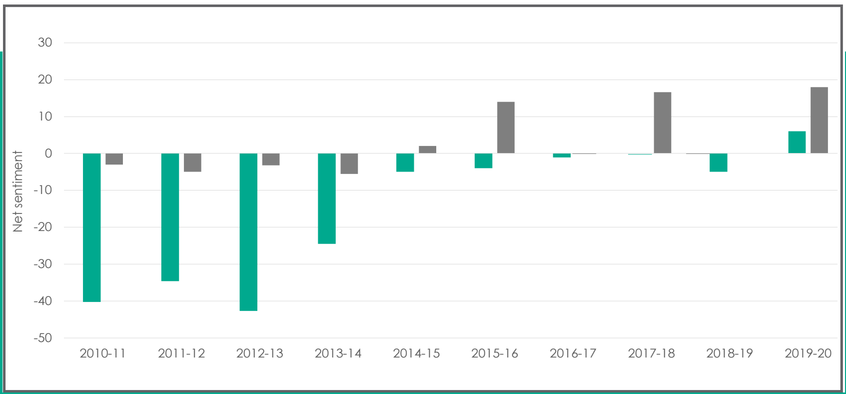
This year saw an improvement in the sentiment score from last year, however the sentiment remains negative. There is a link between social licence to operate and access to investment capital due to investors having an increased focus on community perception of the industry when investing.

LEGEND

Queensland

Rest of Australia

CHART 4.4.9: EXPLORATION PERMIT PROCESSES 2010-11 TO 2019-20

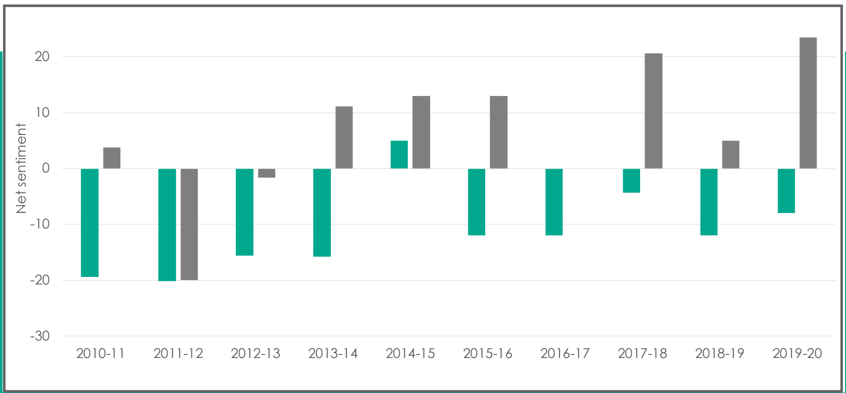


The exploration permit process category is the success story of the 10 years of the Scorecard. It does not have the highest positive sentiment for the year, but this category has seen the most dramatic change over the past ten years – improving consistently since 2010 from scoring -40 to receiving a positive score of 6 in 2020. Seeing major improvements in the Scorecard's 5th year, this year marks the first year this category receives a net positive score.

This improvement is due to the continuous work DOR has undertaken to improve permit processes over the last five years. The Department values industry feedback, and the Scorecard has over the past decade had an excellent working relationship with the Department. The concerns highlighted by the Scorecard has in-large been addressed and improved by DOR.

Note: Rest of Australia's sentiment in 2016-17 and Queensland's sentiment in 2017-18 were neutral (zero)

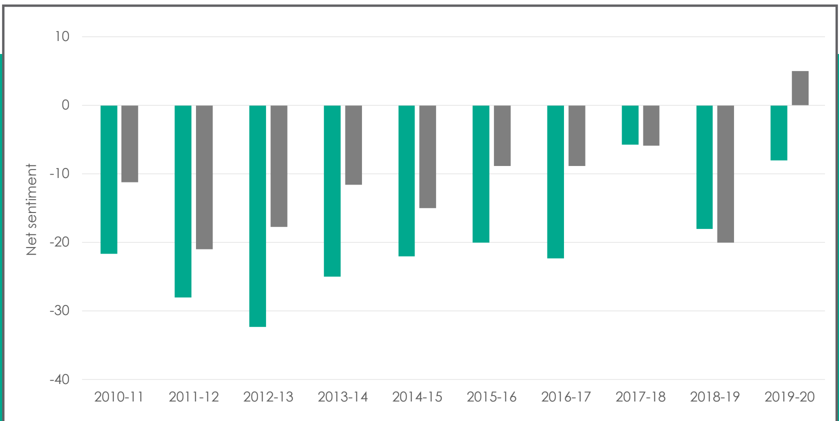
CHART 4.4.10: LAND AVAILABLE FOR EXPLORATION 2010-11 TO 2019-20



Sentiment towards available land improved slightly over 2019-20. This category has had an ongoing negative sentiment for all years except one - but has seen improvements in the overall score since 2013. Some explorer companies point out that there is a bias from the government towards the North West Minerals Province and wish to see a more generalised focus. Land-banking has also been mentioned as an ongoing issue in Queensland.

Note: Rest of Australia's sentiment in 2016-17 was neutral (zero)

CHART 4.4.11: CULTURAL HERITAGE REGULATIONS 2010-11 TO 2019-20



This year's sentiment score has improved from last year's results. Last year's survey was launched around the same time as Queensland's Cultural Heritage legislation review was underway, creating an increased amount of uncertainty amongst explorers. This uncertainty was not in the forefront of explorers' minds at the time of this year's survey.

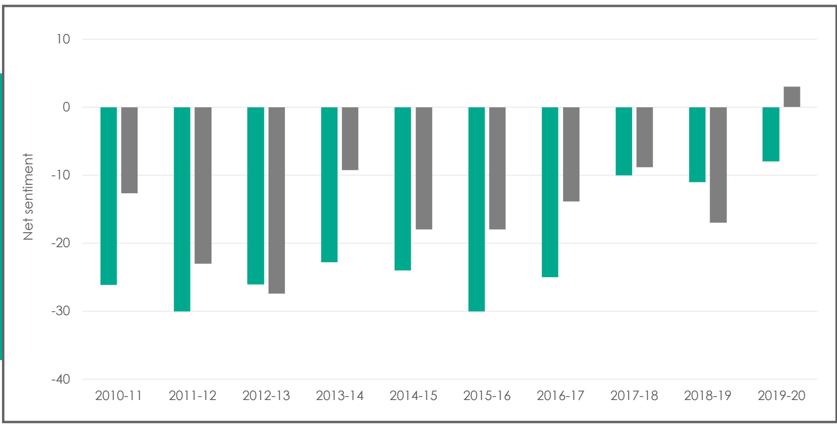
Following the May 2020 Juukan Gorge incident in the Pilbara region of Western Australia, the Government has sought to replicate Queensland's Cultural Heritage framework; communicating to the industry and public that Queensland's cultural heritage laws are sound.

LEGEND

Queensland

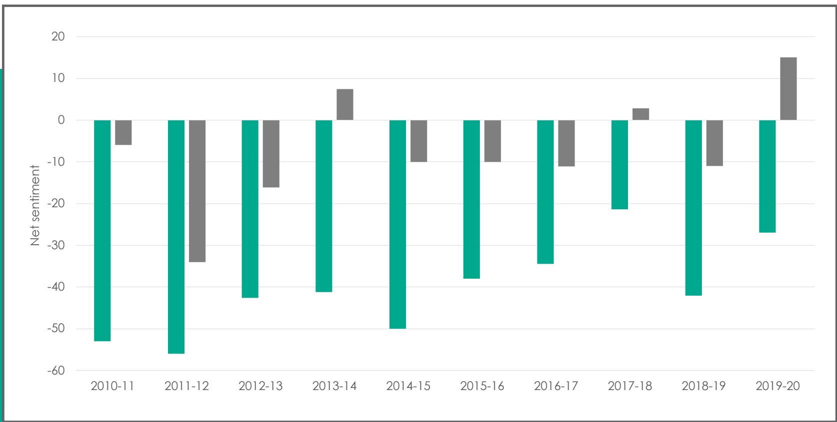
Rest of Australia

CHART 4.4.12: NATIVE TITLE REGULATIONS 2010-11 TO 2019-20



Sentiment towards Native Title regulations continue to improve, with this year's score being the highest it has received in the Scorecard's history. Legislation reviews in previous years have been widely accepted by the industry, continuing an increasingly positive trajectory this year.

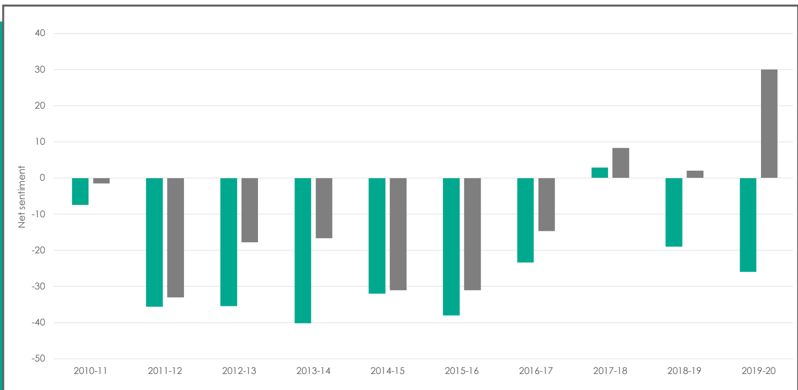
CHART 4.4.13: CONDUCT AND COMPENSATION AGREEMENTS 2010-11 TO 2019-20



This is another category that continues to be overwhelmingly negative year after year. The conduct and compensation category again received the lowest sentiment score of the year (excluding COVID-19 related factors). It did however improve slightly from last year.

Participants pointed out that conduct and compensation agreements in other jurisdictions were favourable and looking to other Australian jurisdictions could help improve Queensland exploration processes. Respondents are calling for a streamlined land access process and for the government to standardise access and compensation agreements' costs and fees. The QRC 2020 Streamlining Report released in June this year identifies the issues expressed above and makes a series of recommendations to improve on current streamlining issues, including conduct and compensation agreements.

CHART 4.4.14: ACCESS TO INVESTMENT CAPITAL 2010-11 TO 2019-20



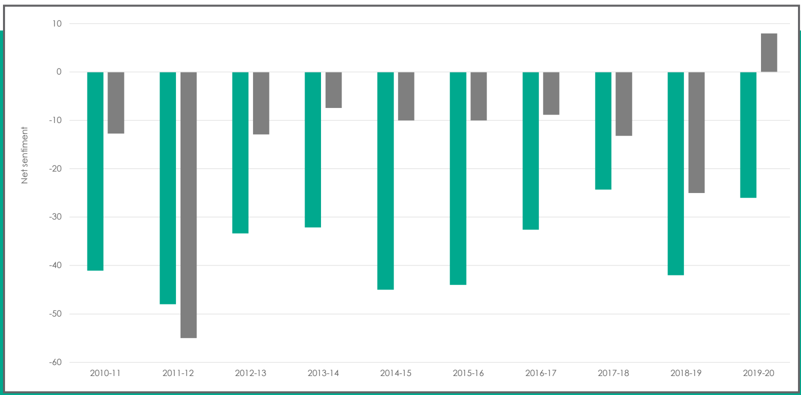
This year saw another decline in the sentiment towards access to investment capital. The issues from last year remain with oil and gas scoring the lowest sentiment in this category. There is a strong correlation between those responses that reported a negative impact from COVID-19 related factors and negative responses in this category. Of the survey results, 47% of responders put access to investment capital in their top 3 issues that negatively impacted the commercial objectives of their organisation in 2019/20. Some responders also reported a link between access to investment capital and policy uncertainty.

LEGEND

Queensland

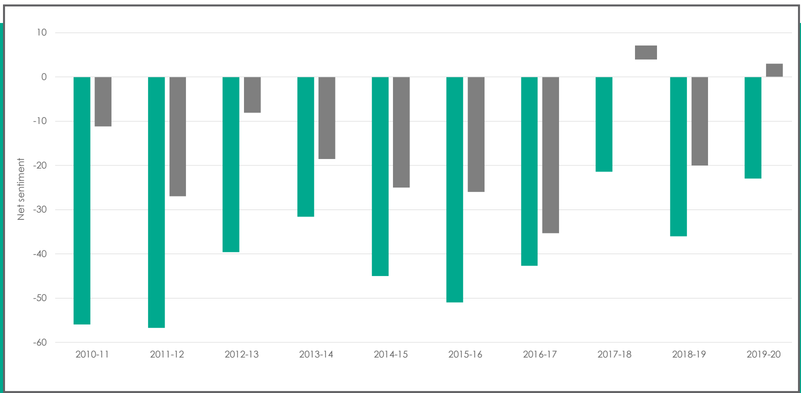
Rest of Australia

CHART 4.4.15: ENVIRONMENTAL REGULATIONS 2010-11 TO 2019-20



This year saw an improvement in the sentiment towards environmental regulations from last year's low score. This category scored the 3rd lowest overall ranking (excluding COVID-19 measurement). Explorers called for a change in Queensland's approach to environmental regulation, suggesting changing environmental reporting requirements and improved Environmental Bond Process to enable cash flow. One explorer commented: ***"drawing upon successful environmental assessment processes from other states to improving existing environmental assessment processes in Queensland would benefit the entire sector".***

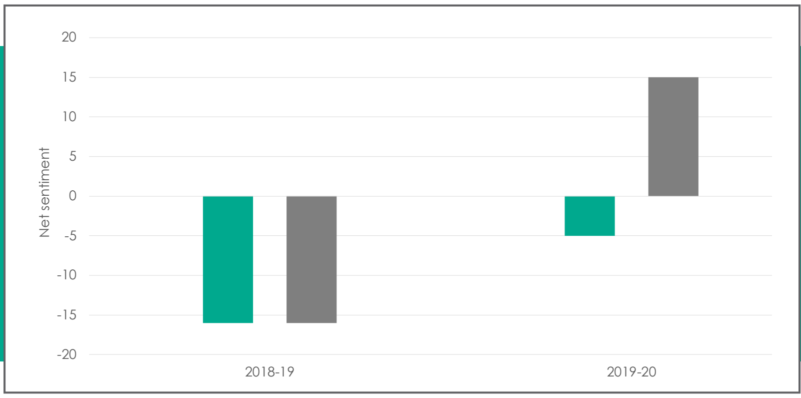
CHART 4.4.16: POLICY UNCERTAINTY 2010-11 TO 2019-20



The sentiment score has improved from last year but is continuing to remain negative. Explorers raised concerns regarding unclear environmental legislation, COVID-19 policies affecting business due to frequent changes and uncertainty due to project delays. Explorers also pointed out that the Government's support for the industry is unclear and that there is not adequate industry consultation before passing new policies.

Base metal, technology minerals and coal explorers pointed to greater policy certainty in Western Australia, causing a favourable environment for their operations. One coal miner commented ***"In Qld, objectors have the ability to endlessly object tenure applications, holding up grant of tenure. If you can't get a mining lease, why explore?"***

CHART 4.4.17: ROYALTY AND TAX RATES 2018-19 TO 2019-20

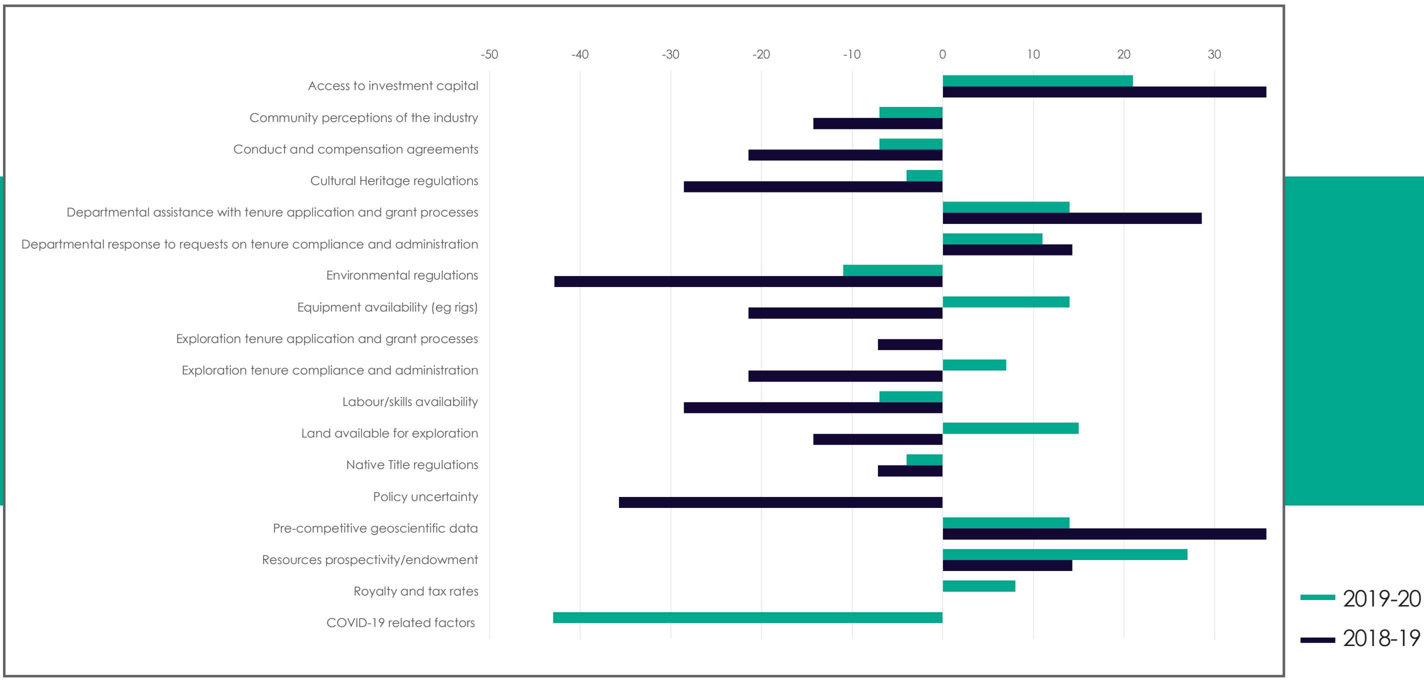


For the second year of monitoring royalty and tax rate, the sentiment has improved. Coal explorer's responses were the main driver of the negative sentiment, with 32% delivering a negative sentiment and the remainder a neutral sentiment. Oil and gas explorers also contributed to the negative sentiment with 25% giving a negative score. Explorers in Technology minerals, base metals and drilling companies responded with a positive sentiment, driving up the overall score from last year.

4.5 QUEENSLAND DRILLING INDUSTRY SENTIMENT

The drilling industry is vital for exploring and developing Queensland's natural resources and it remains an important bellwether for the health of the sector. The Australian Drilling Industry Association asked its member companies with drilling interests in Queensland a number of questions to gauge the sentiment and outlook for the industry.

CHART 4.5.1: QUEENSLAND DRILLER SENTIMENT 2018-19 VS 2019-20



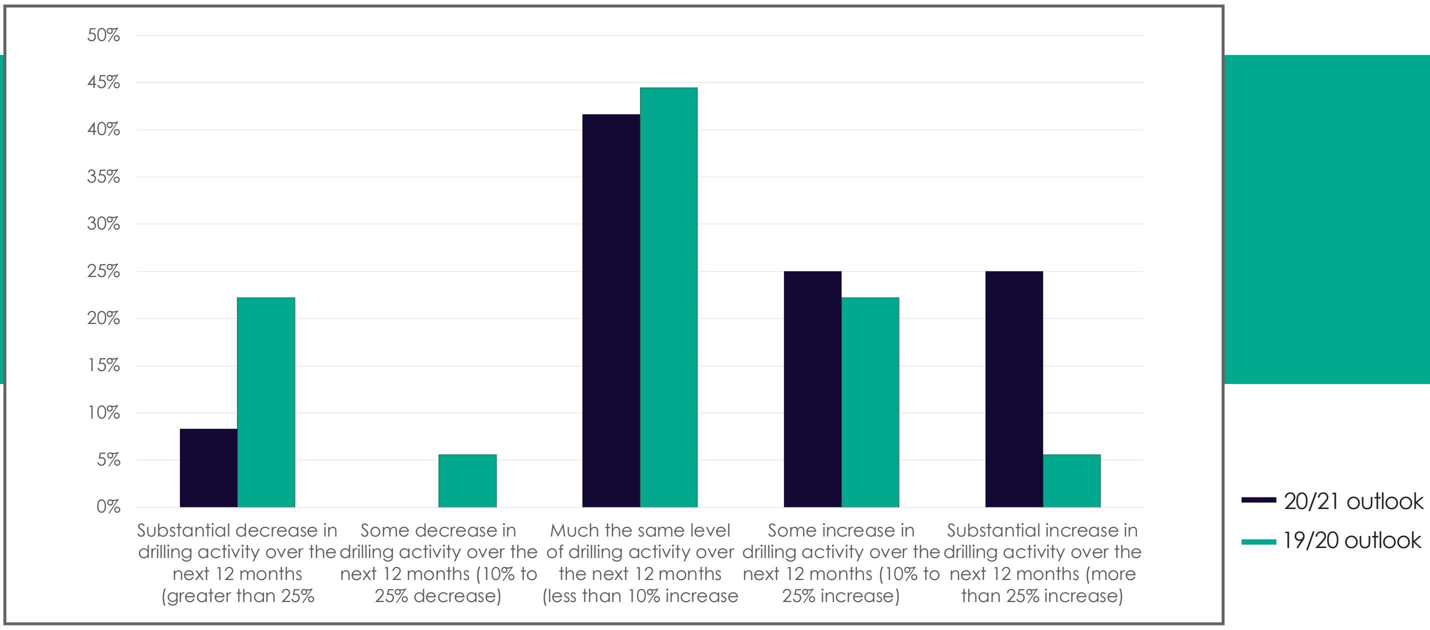
Note: Years with no data equals a neutral score (zero).

The drilling and exploration surveys produced similar sentiment direction for the various categories. The score for royalty and tax rates, access to investment capital, policy uncertainty and land available for exploration differs between the two, with drillers producing positive sentiment and explorers negative sentiments.

The largest concerns for drillers this year was by far COVID-19 related factors, with all other categories scoring relatively positive. The most positive sentiment scores this year went to resource prospectivity and endowment, followed by access to investment capital.

This year's drillers survey outcome is encouraging and reflects a busy year with a large amount of activity. Policy uncertainty has the biggest change in sentiment, going from very negative last year to neutral this year. The sentiment on environmental regulation has changed from very negative to slightly negative. The same trends were seen across many of the categories.

CHART 4.5.2: 12 MONTH OUTLOOK FOR DRILLING 2019-20 VS 2020-21



This year we see a much more negative outlook than last year, tripling the number of drillers expecting a substantial decrease in future activity. Of the survey respondents, 44% of drillers estimated that the level of activity will be much the same, and 22% expect drilling activity to increase between 10% and 25%.

Drilling activity is an important bellwether for the exploration sector more generally and the latest results point to continued growth in the industry. The results show 72% of drilling respondents expect to maintain or increase their drilling activity over the next 12 months while 28% expect a decrease. Responders reporting an expected decrease in activity over the coming 12 months also reported negative impact from COVID-19 and environmental policy frustration.

To improve drilling activity in Queensland, responders suggested reducing red tape, standardising further elements of negotiating a Conduct and Compensation Agreement and releasing more greenfield land.

COVID-19 restrictions had a negative impact on drillers activity, with reports of major financial losses due to projects being postponed and skilled labour being unavailable due to the border closure. One driller commented “COVID-19 restrictions has delayed contract work with drillers often living interstate or overseas. Travel restrictions and quarantine requirements have restricted access to the most highly trained sector of our workforce. Across the company this has caused approx. 20% reduction in profitability and we are not a recipient of any government COVID-19 related financial aid.”

The market demand for coal and other commodities has also had a direct impact on drilling operations, with one company reporting that “the general, worldwide, drop in market demand for coal resulted in all suppliers reviewing drilling requirements and reducing or delaying scopes of work”.

5.0 TENURE COVERAGE

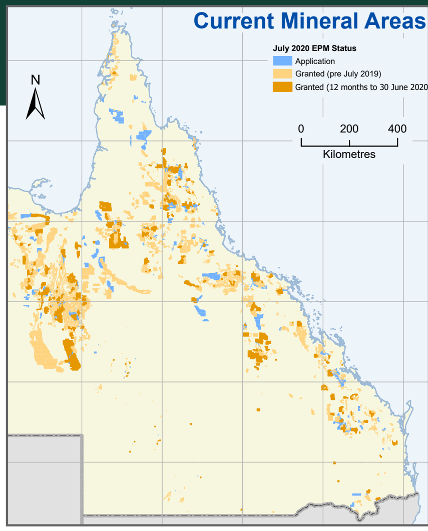


CHART 5.1: EXPLORATION PERMIT MINERAL COVERAGE, JULY 2020

The map to the right displays 2019-20 mineral tenure permits and applications in Queensland and is a great depiction of the state's vast minerals potential. Exploration activity targeting base metals, such as gold and copper, play a continuous central role in Queensland's minerals exploration. Queensland is making way in developing a critical minerals industry, with initiatives targeting technology and battery minerals exploration targets such as Rare Earth Elements, lithium, cobalt and tungsten. To encourage minerals exploration DOR awarded seven companies grants of up to $200,000 towards New Economy Minerals exploration and to a further twenty-five companies in July 2020. A majority of the exploration grants were in the North West. In 2019-20, Queensland saw an increase in tenure applications from last year. A particularly large increase in activity was seen in the North West and North East and there were few tenure applications and grants outside the areas of known deposits.

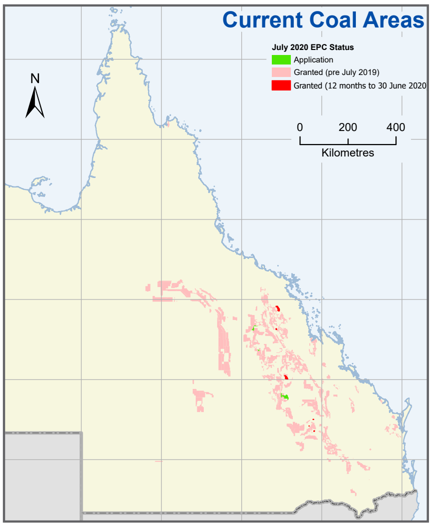


CHART 5.2: EXPLORATION PERMIT COAL COVERAGE, JULY 2020

Queensland has a rich coal endowment and some of the highest quality metallurgical coal in the world. As part of the Queensland Exploration Program the government released five coal tender areas in the second half of 2019 and two new coal tender areas in the Bowen Basin in 2020. The awarded coal tenure grants and active tenure applications are not as widespread as for minerals or petroleum. This is likely due to an increased focus on coal development and production activities as part of the progression of coal exploration tenure.

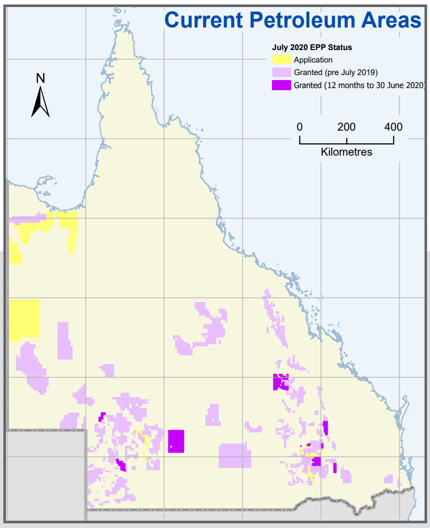


CHART 5.3: AUTHORITY TO PROSPECT (PETROLEUM), JULY 2020

The Queensland petroleum sector is central to the domestic supply of gas along the east coast of Australia and has also become a key export for the state over the past few years. Petroleum exploration tenure in Queensland is distributed across the state characterised by the larger permit areas being in greenfield regions and most tenures and generally smaller permit areas being in brownfields regions. DOR released 18 petroleum tender areas in the first half of the financial year and a further 12 in the second half.

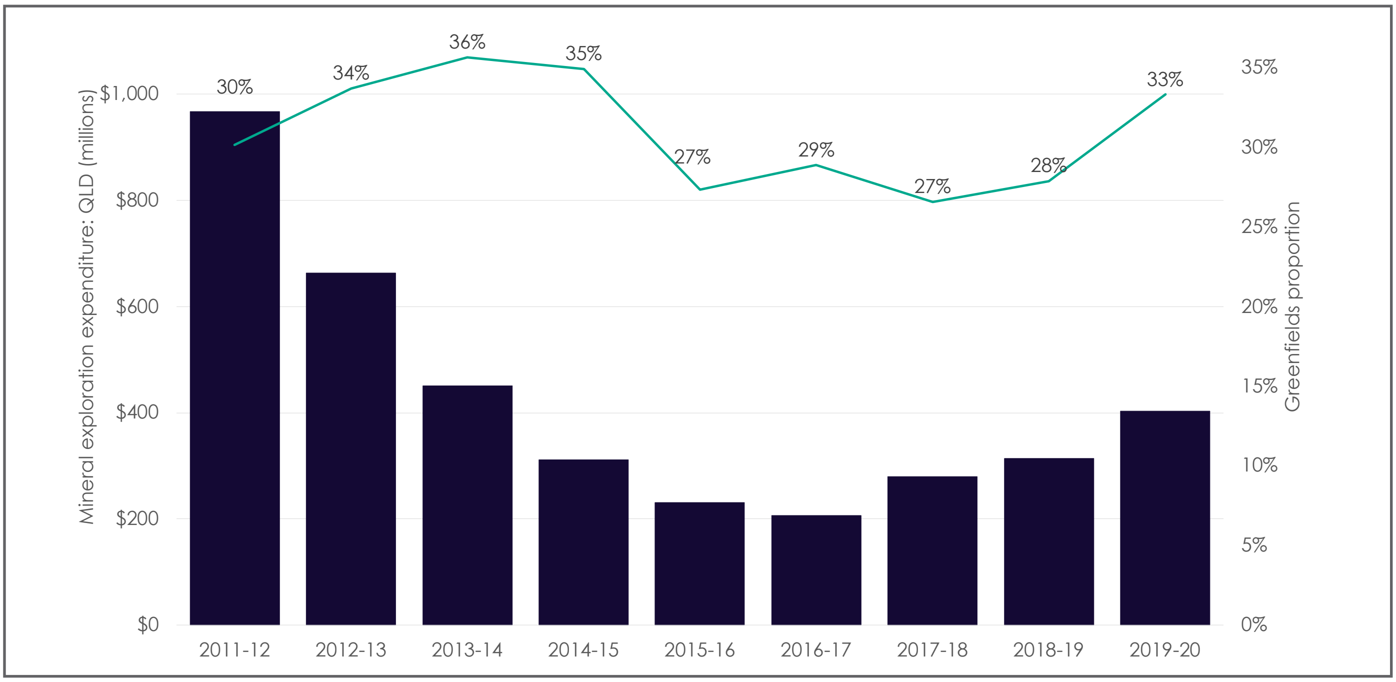
KEY FINDINGS

- DOR exploration permit process continued to improve in 2019-20 and is an ongoing success for the sector.
- Queensland Exploration Program continues to release prospective land for coal and petroleum explorers. Collaborative Exploration Grant is encouraging minerals exploration in areas with high New Economy Minerals prospectivity.
- Like previous years, petroleum exploration is widespread across the State. Tenure applications and grants for minerals exploration appear through the eastern parts of the state, but with the majority of minerals exploration located across North Queensland (particularly North West). Coal exploration tenure applications and grants are confined to the Bowen and Surat basins and compared to other commodity groups pragmatic amounts of land are up for tender.

Source: Department of Resources

6.0 MINERALS AND PETROLEUM EXPLORATION

CHART 6.1: NEW DEPOSITS (GREENFIELDS) AS PERCENTAGE OF TOTAL QUEENSLAND MINERALS EXPLORATION EXPENDITURE - 2011-12 TO 2019-20

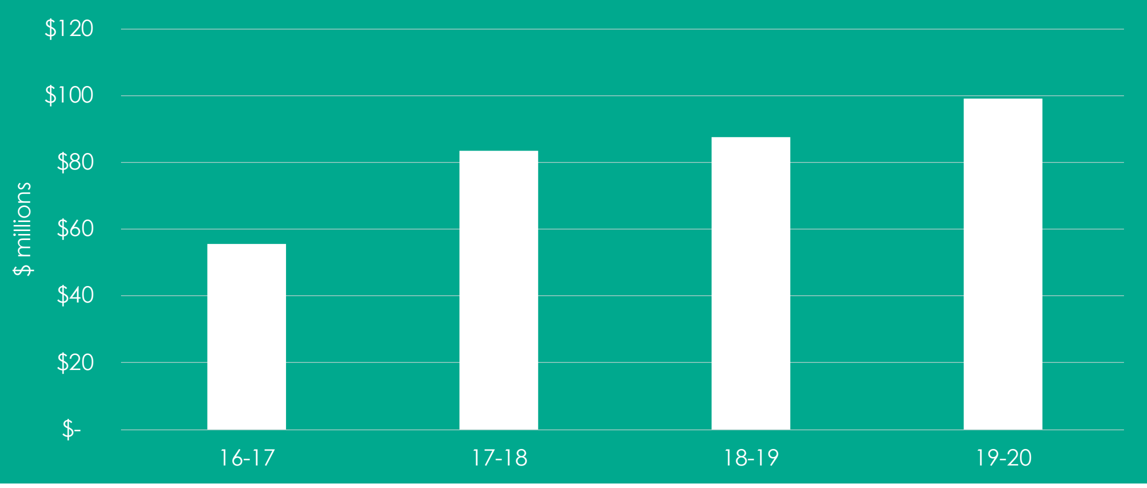


Source: ABS 8412.0

In 2019-20, Queensland's greenfields share of mineral exploration improved slightly for the second year in a row, increasing to 33% of all exploration spend. The result is a strong improvement on last year's 27%, with Queensland's greenfields proportion heading towards recent highs.

Queensland junior explorer companies continue to expand throughout 2019-20. AUSTEX Resources opportunities data shows that junior company exploration expenditure in Queensland increased a staggering 77% since 2016-17 financial year, and 13% between 2018-19 and 2019-20 financial year alone (see chart below). Junior petroleum explorer companies topped the AUSTEX list with the highest exploration expenditure per company. However, majority of junior explorers on the list were mineral explorers with targets such as gold, copper and coal.

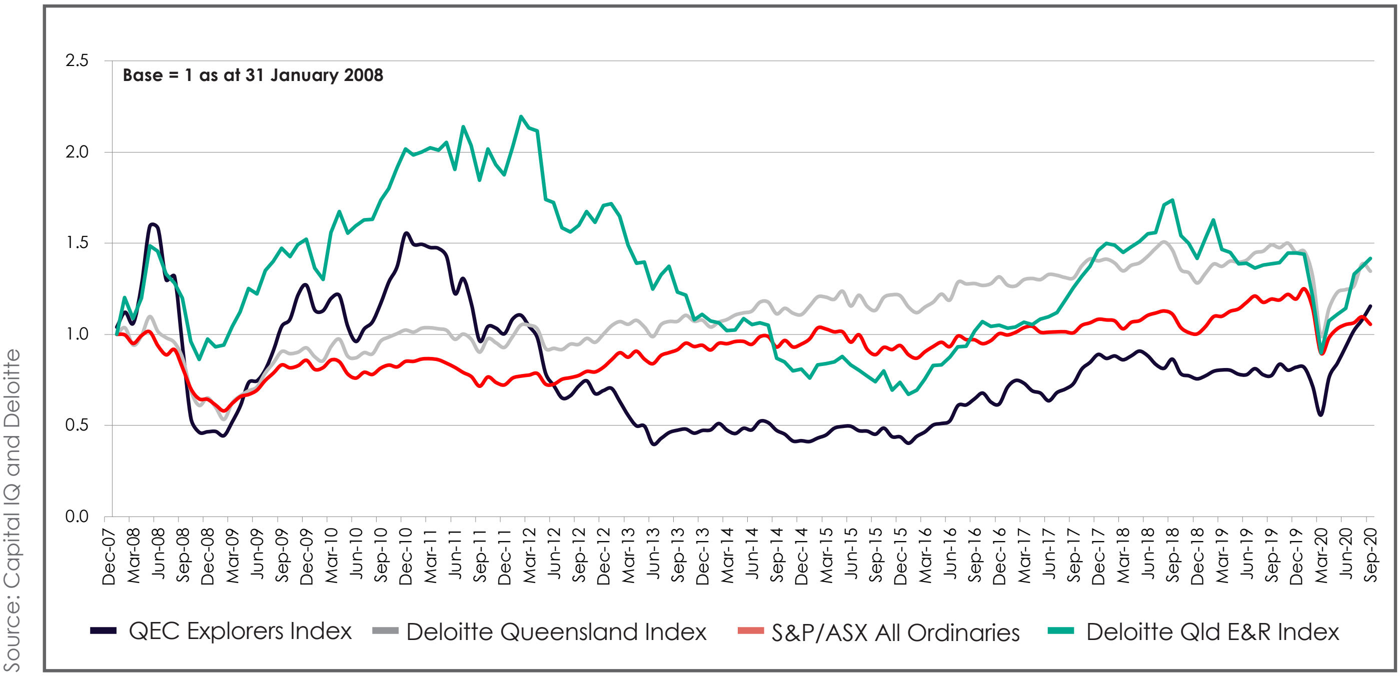
CHART 6.2: AUSTEX JUNIOR COMPANY EXPLORATION EXPENDITURE IN QUEENSLAND ($MILLIONS, ANNUAL)



Source: AUSTEX Resource Opportunities

7.0 MARKET CAPITALISATION MOVEMENTS

CHART 7.1: QEC EXPLORATION INDEX VERSUS OTHER CAPITAL INDICES



Economic conditions dropped drastically in March 2020 as the impact of COVID-19 hit. The conditions across the board were improving at the end of the financial year. The QEC Explorers Index had the most dramatic change, with a 66% increase from the low in March and still increasing in the months beyond the scope of the Scorecard. At the end of the 2019-20 financial year the Deloitte Explorers and Resources Queensland Index decreased 16%, the S&P/ASX All Ordinaries increased by 3.6%, the Deloitte Queensland Index decreased 3% and the QEC Explorers Index increased by 1%.

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