

Earth Resources Regulation

2018-19 Annual Statistical Report



Acknowledgement of Victoria's Traditional Owners

The Victorian Government proudly acknowledges Victorian Traditional Owners as Victoria's first peoples and pays its respects to their Elders past and present.

We recognise the intrinsic connection of the first peoples to their Country for countless generations and their inherent obligation to maintain and strengthen their distinct cultural rights and responsibilities to care for their Country.

We value Traditional Owners' role in the management of land, water and biodiversity and acknowledge the ongoing contribution this makes to our earth resources.

We have distinct legislative obligations to Traditional Owner groups that are paramount in our responsibilities in managing Victoria's resources.

We support the need for genuine and lasting partnerships with Aboriginal people and communities to understand culture and connections to Country in the way we plan for and regulate our earth resources.

Disclaimer

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Authorised by the Victorian Government
Department of Jobs, Precincts and Regions
1 Spring Street Melbourne Victoria 3000
Telephone (03) 9651 9999

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For more information see the Earth Resources Regulation website www.earthresources.vic.gov.au/earth-resources-regulation

This document is also available in PDF and accessible Word format at <http://earthresources.vic.gov.au/earth-resources-regulation/about-us/regulator-and-industry-reporting/earth-resources-regulation-annual-statistical-report/>

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1 Introduction

The Earth Resources Regulation unit in the Department of Jobs, Precincts and Regions (DJPR) is responsible for the regulation of minerals, extractives, petroleum, pipelines, geothermal and carbon storage activities in Victoria and offshore (Victorian) waters. Earth Resources Regulation administers a consistent and transparent regulatory regime and conducts monitoring and compliance operations to ensure that authority holders comply with their statutory obligations.

Earth Resources Regulation administers the following Acts:

- *Mineral Resources (Sustainable Development) Act 1990* (MRSDA) (mineral exploration, mining and quarrying);
- *Offshore Petroleum and Greenhouse Gas Storage Act 2010* (OPGGSA) (petroleum exploration and development, greenhouse gas storage and pipelines in the Victorian offshore waters);
- *Petroleum Act 1998* (petroleum exploration and development onshore);
- *Geothermal Energy Resources Act 2005* (geothermal energy exploration and development); and
- *Greenhouse Gas Geological Sequestration Act 2008* (greenhouse gas storage onshore).
- *Extractive Industries (Lysterfield) Act 1986*
- *Nuclear Activities (Prohibitions) Act 1983*
- *Underseas Mineral Resources Act 1963*
- *Mines (Aluminium Agreement) Act 1961*

Key observations and statistics from the 2018-19 returns include:

Extractive operations

- Rock production increased 2.5% from 61.2 to 62.7 million tonnes. (*Table 2.1*)
- Value of sales increased 3.4% from \$987.9 million to \$1021.6 million (*Table 2.1*)

Minerals Exploration and Mining operations

- Exploration expenditure increased 46.5% from \$69.0 to \$101.1 million. (*Table 3.1.1*)
- Mining expenditure increased 12.2% from \$654.7 to \$734.9 million. (*Table 3.1.1*)
- Gold exploration expenditure increased 29.1% from \$44.3 to \$57.2 million. (*Table 3.1.2*)
- Gold mining expenditure increased 33.0% from \$238.2 to \$316.8 million. (*Table 3.1.4*)
- Gold production increased 55.8% from 364,294 to 567,501 ounces. (*Table 3.2.1*)

Petroleum

- Gas production totalled 14,523 million standard cubic feet, which equates to approximately 15.4 petajoules of energy, an increase of 1.5 petajoules year on year. (*Table 4.1.1*)

Royalties and Regulatory Fees

- Royalties payable decreased from \$99.1 to \$96.4 million (*Table 5.1.1*)
- Regulatory fees increased from \$5.1 million to \$5.9 million. (*Table 5.2.1*)

Rehabilitation bonds

- Total value of rehabilitation bonds held remained steady at approximately \$812.7 million. (*Table 6.1.1*)

The 2018-19 Statistical Report presents a compilation of data as reported by authority holders to Earth Resources Regulation. All production and expenditure figures are certified by authority holders. As at 31st December 2019, 92 per cent of MRSDA licence holders have submitted an annual **Production & Royalty / Expenditure & Activity** report. Compliance action is continuing to ensure that all authority holders fulfil their reporting obligations. The highest level of reporting compliance was achieved in the extractives (quarries) sector.

The report also includes data on exploration, production, expenditure, revenues, regulatory actions, licences and data from the Australian Bureau of Statistics (ABS).

The annual statistical report may be revised in the future as more **Production & Royalty / Expenditure & Activity** reports are received from the industry.

2 Extractives

Quarries produce predominantly hard rock, clay, sand and gravel, which are mostly used for constructing houses, public infrastructure and private sector developments.

As at 30 June 2019, there were 873 quarries with a current work authority under the MRSDA. The number remained relatively stable over the last seven years. As at 31st December 2019, a total of 539 quarries reported production in 2018-19. The production volume increased from 61.2 to 62.7 million tonnes and value of sale increased from \$987.9 million to \$1021.6 million. Sales of quarry products fluctuate based on the demand from the domestic building and construction sector.

Table 2.1 Production and Value of Sale by financial year

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Quarries with production	535	485	554	542	544	552	539
Production (million tonnes)	47.44	40.33	50.69	54.09	58.05	61.22	62.72
Value of Sale (\$million)	\$737.4	\$676.55	\$767.3	\$801.01	\$854.67	\$987.87	\$1021.63

Figure 2.1 Production and Value of Sale by financial year

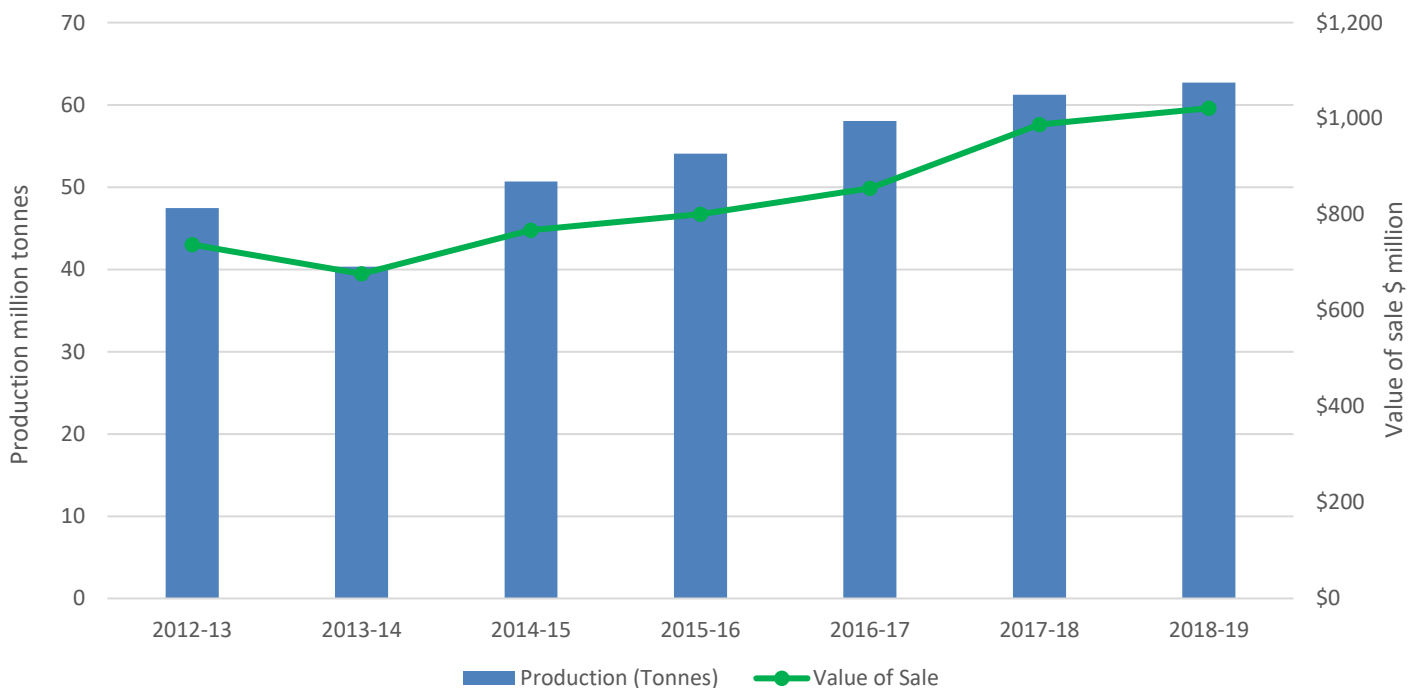


Table 2.2 Extractive industry production and value of sale by product type 2018-19

Product Group	Product Type	Production Volume (million tonnes)	Value of Sale (\$ million)
Clay products	Brick	0.81	2.32
	Brick Pavers	0.13	0.39
	Stoneware Pottery	0.004	0.05
	Tile/Pipe	0.00	0.00
Clay products Total		0.94	2.75
Limestone products	Agriculture	0.62	16.25
	Cement	0.03	0.72
	Lime	0.07	1.28
Limestone products Total		0.71	18.26
Miscellaneous	Dimension Stone	0.00	0.12
	Soil	0.05	0.59
	Unspecified	2.80	30.89
Miscellaneous Total		2.84	31.60
Multi size products	Fill	3.78	38.37
	Road Base Class 1	7.39	118.73
	Road Base Class 2	0.22	3.46
	Road Sub-Base	11.92	147.65
	Road Sub-Base Class 3	0.57	8.76
	Road Sub-Base Class 4	0.09	1.42
	Road Sub-Base NDCR	0.16	2.17
	Road Sub-Base Track Material	0.14	0.52
Multi size products Total		24.27	321.07
Sand products	Concrete Sand	9.18	150.78
	Fine Sand	1.61	19.33
	Foundry Sand	0.86	19.11
	Industrial Filters	0.02	0.20
Sand products Total		11.67	189.42
Single size products	Aggregate	21.36	427.62
	Armour	0.05	0.92
	Armour Beaching	0.87	29.99
Single size products Total		22.28	458.53
Grand Total		62.72	1021.63

Source: DJPR, statutory returns under the MRSDA.

Table 2.3 Extractive industries production and value of sale by rock type 2018-19

Rock Group	Rock Type	Production Volume (million tonnes)	Value of Sale (\$ million)
Hard Rock	Basalt	25.46	435.24
	Dolerite	0.001	0.01
	Gneiss	0.01	0.00
	Granite	5.35	117.65
	Hornfels	5.22	86.87
	Quartzite	0.03	0.75
	Rhyodacite	1.51	33.52
	Schist	0.48	9.31
	Slate	0.04	1.17
	Trachyte	0.03	0.70
Hard Rock Total		38.13	685.22
Soft Rock	Clay and Clay Shale	1.20	3.52
	Limestone	1.98	28.91
	Sand and Gravel	16.52	247.23
	Scoria	0.76	12.97
	Sedimentary*	3.75	39.68
	Soil	0.05	0.62
	Tuff	0.32	3.48
Soft Rock Total		24.59	336.41
GRAND TOTAL		62.72	1021.63

Source: DJPR, statutory returns under the MRSDA

*Sedimentary (usually rippable rocks including sandstone, shale, siltstone, chert, mudstone, claystone)

Table 2.4 Status of extractive industry work authorities as at 30 June 2019

Tenement	Work Authority Application*	Current
Extractive	18	873

Source: DJPR

*This category is when an applicant has lodged a valid Work Authority application fee

3 Minerals

3.1 Mineral exploration and mining expenditure

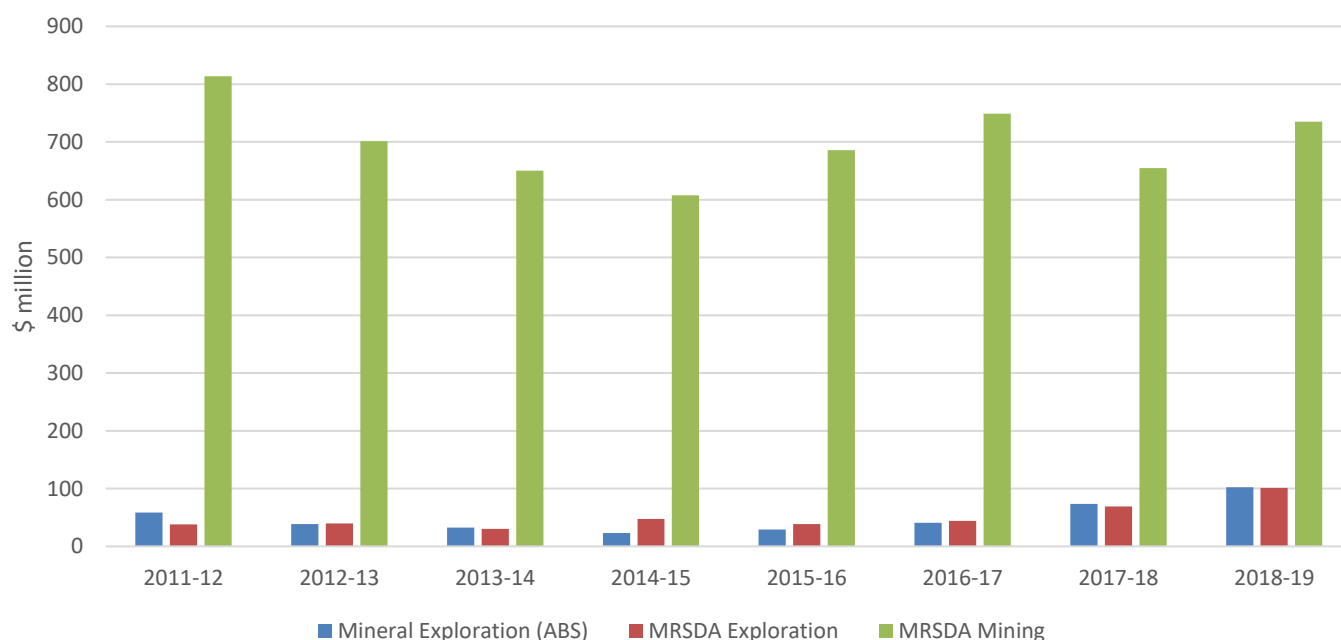
Table 3.1.1 Expenditure on mineral exploration and mining development (\$ million)

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Mineral Exploration (ABS)¹	\$38.6	\$32.6	\$22.9	\$28.9	\$40.7	\$73.7	\$102.2
MRSDA Exploration²	\$39.7	\$30.5	\$47.5	\$38.5	\$44.3	\$69.0*	\$101.1
MRSDA Mining³	\$701.2	\$650.3	\$607.8	\$685.8	\$748.8	\$654.7*	\$734.9

Source: Figures collated from activity reports forwarded to DJPR required under the MRSDA, and ABS, Actual and Expected Private Mineral Exploration ([Catalogue No. 8412.0](http://www.abs.gov.au/ausstats/abs@.nsf/mf/8412.0) <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8412.0>)

*The 2017-18 figures have been updated to include industry submissions after the last publication of the 2017-18 Annual Statistical Report.

Figure 3.1.1 Expenditure on mineral exploration and mining



Source: DJPR

¹ The ABS reports quarterly on private mineral exploration expenditure for all Australian states and the Northern Territory (NT). Victorian mineral exploration and mining expenditure is also reported in accordance with the requirements of the MRSDA. The ABS exploration expenditure statistics can vary significantly from expenditure reported under the MRSDA. The difference between these two exploration expenditure data sets is mainly due to the difference in methodologies for data collection and the inclusion of the exploration expenditure on mining licences in the MRSDA figure. The ABS statistics are a valid basis for comparison of Victorian expenditure with other states and territories. However, the MRSDA figures provide greater detail.

² Change of metric - expenditure on Exploration and Retention Licences with an Expenditure Reporting Period that ends within the Financial Year.

³ The MRSDA mining expenditure figure covers all expenditure on mining and prospecting licences (including capital and operating expenses), less any specified exploration expenditure on mining and prospecting licences.

Table 3.1.2 Mineral exploration expenditure by commodity and financial year (\$ million)

Exploration expenditure are allocated to the primary nominated mineral commodity on the license in accordance with the MRSDA.

Year	Gold	Mineral Sands	Coal	Other *	Total
2015-16	\$16.4	\$6.5	\$0.37	\$15.3	\$38.5
2016-17	\$25.9	\$5.1	\$0.46	\$12.7	\$44.2
2017-18	\$44.3	\$8.1	\$0.47	\$16.1	\$69.0
2018-19	\$57.2	\$24.2	\$1.0	\$18.7	\$101.0

* "Other" includes cases where there is more than one primary mineral.

Figure 3.1.2 Mineral exploration expenditure by commodity and financial year (\$ million)

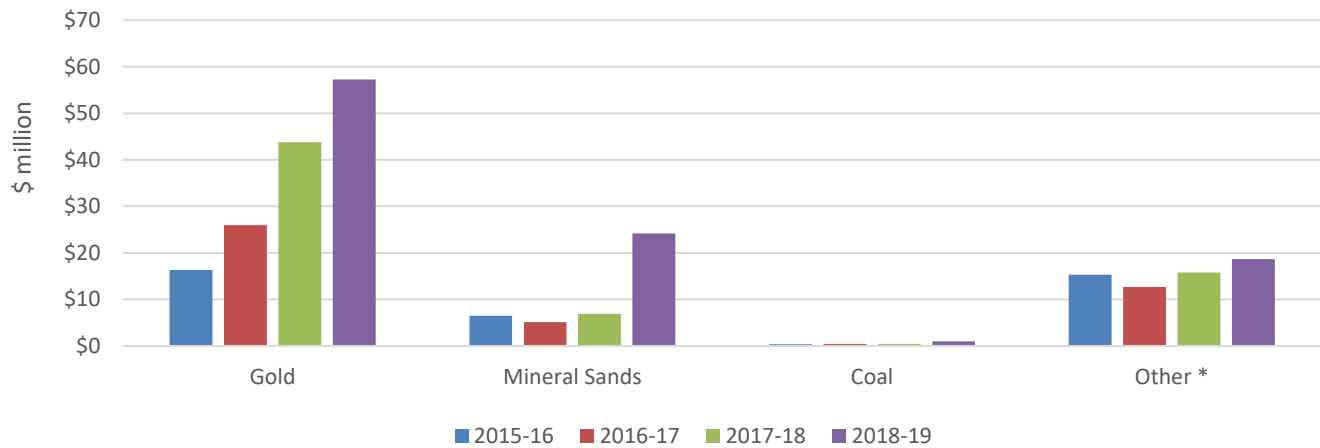


Table 3.1.3 Mineral exploration expenditure by licence type and financial year (\$ million)

Year	Exploration Licence	Mining Licence	Prospecting Licence	Retention Licence	Total
2015-16	\$15.4	\$19.8	\$0.1	\$3.3	\$38.5
2016-17	\$17.0	\$24.5	\$0.1	\$2.7	\$44.2
2017-18	\$21.8	\$42.4	\$0.1	\$4.7	\$69.0
2018-19	\$43.0	\$41.4	\$0.1	\$16.6	\$101.1

Figure 3.1.3 Mineral exploration expenditure by licence type financial year (\$ million)

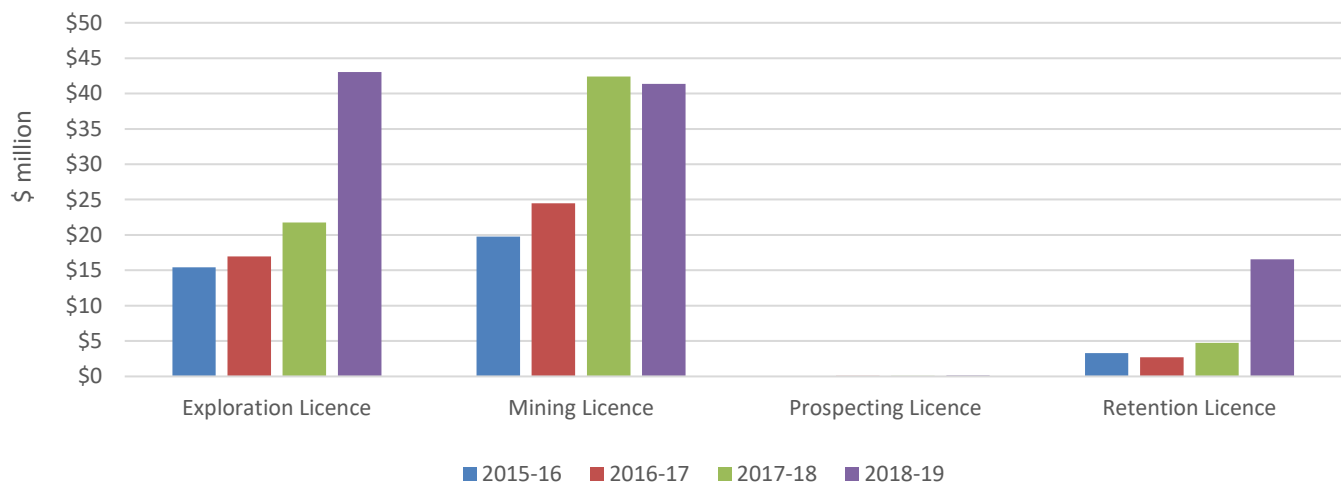


Table 3.1.4 Mining expenditure by commodity and year 2015-16 to 2018-19 (\$ million)

Mining expenditure are allocated to the primary nominated mineral commodity on the license in accordance with the MRSDA.

Year	Gold	Mineral Sands	Coal	Other *	Total
2015-16	\$280.2	\$21.8	\$339.4	\$44.4	\$685.8
2016-17	\$259.9	\$15.2	\$431.2	\$42.5	\$748.8
2017-18	\$238.2	\$12.6	\$359.1	\$44.8	\$654.7
2018-19	\$316.9	\$14.6	\$329.3	\$74.2	\$734.9

* "Other" includes cases where there is more than one primary mineral.

Figure 3.1.4 Mining expenditure by commodity by commodity and financial year (\$ million)

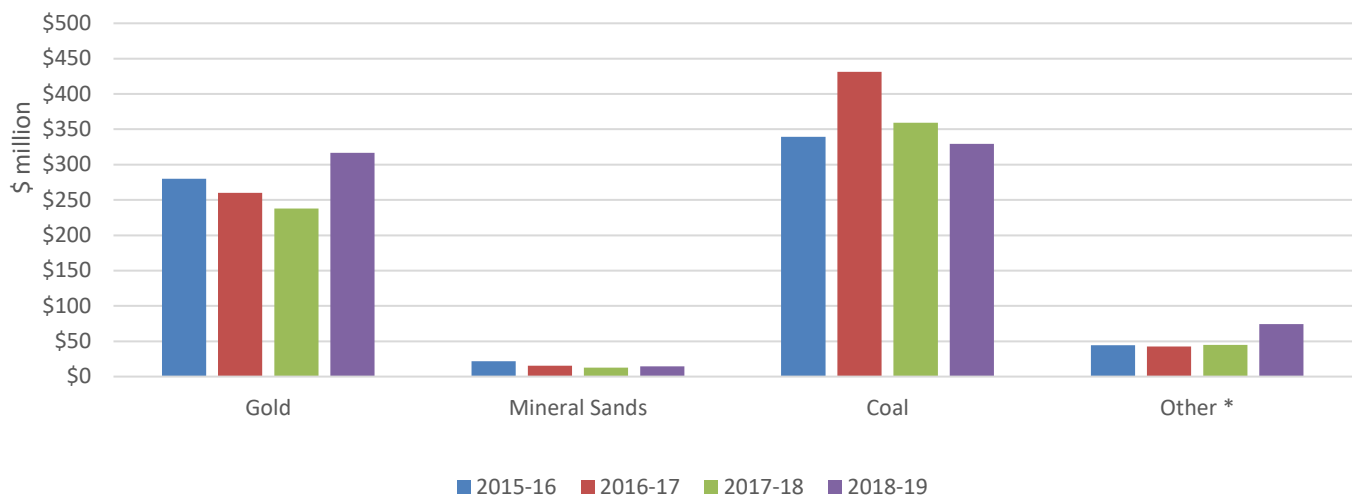
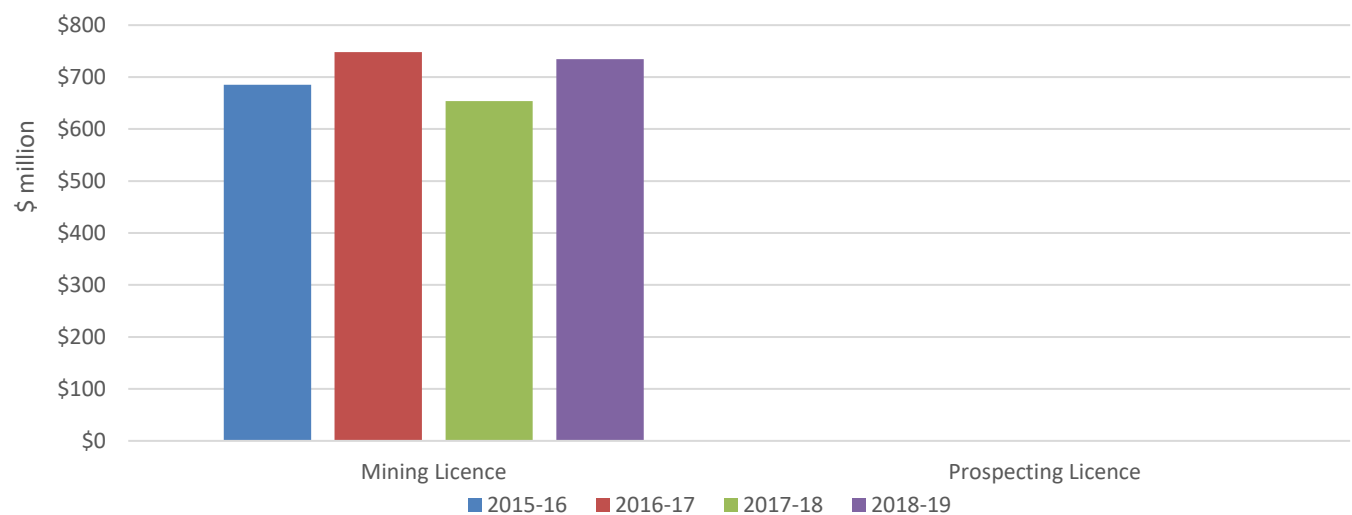


Table 3.1.5 Mining expenditure by licence types and financial year (\$ million)

Year	Mining Licence	Prospecting Licence	Total
2015-16	\$685.1	\$0.7	\$685.8
2016-17	\$748.2	\$0.6	\$748.8
2017-18	\$654.	\$0.7	\$654.7
2018-19	\$734.2	\$0.7	\$734.9

Figure 3.1.5 Mining expenditure by licence type by financial year (\$ million)



3.2 Mineral production

In 2018-19, 56 mining and prospecting licences reported production with a value of \$1,046.9 million.

Table 3.2.1 Mineral production by financial year

Financial Year	Gold* (ounce)	Antimony (tonne)	Zircon (tonne)	Rutile (tonne)	Ilmenite (tonne)	Feldspar (tonne)	Coal (1,000 tonnes)	Gypsum (m ³)	Kaolin and Clay (tonne)
2012-13	225,776	4,558	86,243	140,842	67,067	61,578	59,854	499,681	204,164
2013-14	225,168	5,336	128,064	243,355	563,371	44,254	58,001	454,526	167,333
2014-15	198,387	3,684	77,162	85,983	383,369	40,232	60,957	335,374	152,047
2015-16	256,653	5,945	52,026	90,318	57,763	30,730	59,757	314,759	202,229
2016-17	312,229	5,138	45,597	73,812	44,944	0	56,095	282,720	192,150
2017-18	364,294	2,570	27,515	48,381	24,390	0	45,062	399,569	171,932
2018-19	567,501	2,016	0	0	0	0	42,256	291,842	114,050

Source: DJPR, statutory returns under the MRSDA.

*Gold reported in troy ounces, coal in thousand tonnes, gypsum in cubic meters and the remainder in tonnes.

Table 3.2.2 Mineral production value by financial year (\$ million)

Year	Gold	Antimony	Mineral Sands ²	Industrial Minerals ³	Coal ¹	Others ⁴	Total
2012-13	\$333.1	\$30.8	\$282.7	\$12.8	N/A	\$0.3	\$659.7
2013-14	\$303.4	\$12.5	\$316.5	\$14.1	N/A	\$0.2	\$646.7
2014-15	\$286.9	\$37.8	\$185.1	\$10.2	N/A	\$0.1	\$520.1
2015-16	\$411.4	\$30.6	\$175.9	\$10.0	N/A	\$0.6	\$628.5
2016-17	\$519.8	\$33.6	\$188.5	\$8.0	N/A	\$0.2	\$750.1
2017-18	\$613.5	\$28.2	\$172.6	\$11.7	N/A	\$0.2	\$826.2
2018-19	\$1015.5	\$21.2	\$0	\$10.2	N/A	\$0.04	\$1,046.9

Source: DJPR, statutory returns under the MRSDA.

¹ No unit value is assigned to coal for the purposes of determining its production value. Coal is almost entirely used for electricity production and is largely an internal transfer within mining/generation entities. As such, there is no available market price for coal.

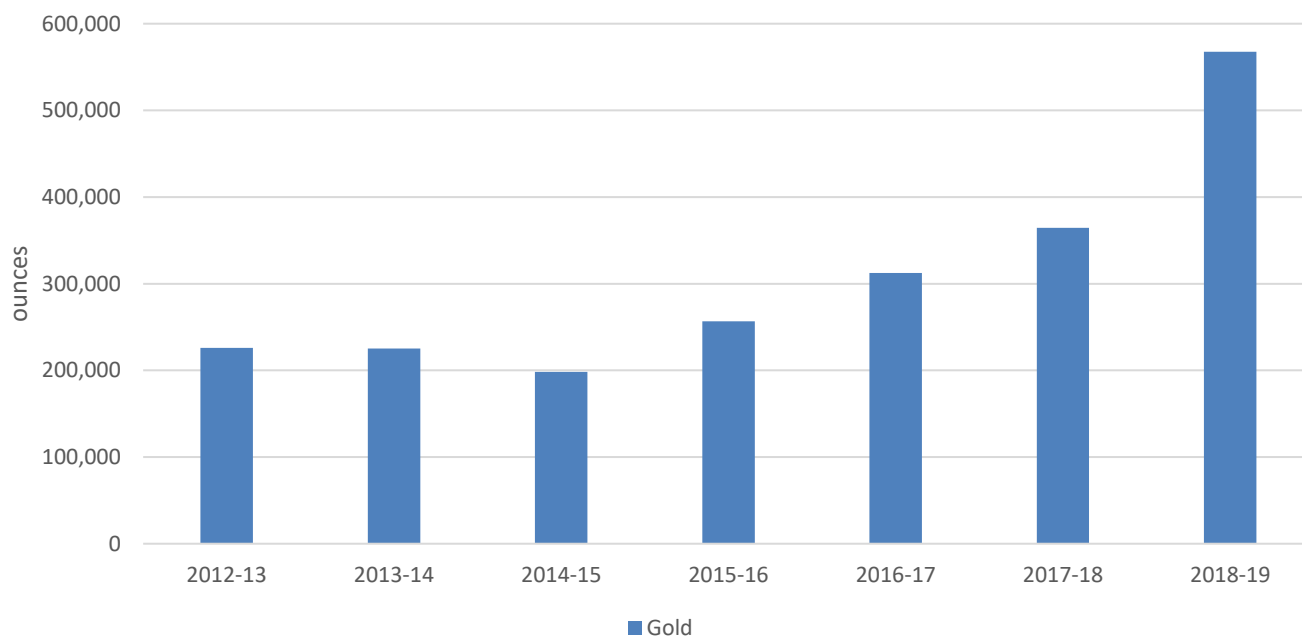
² Mineral Sands (zircon, rutile, ilmenite)

³ Industrial Minerals (feldspar, gypsum, kaolin & fine clay)

⁴ Others (includes silver, peat and quartz)

Figure 3.2.1 Gold production (ounces) by financial year

Gold production for 2018-19 was 567,501 ounces, the highest in the last seven years.



Source: DJPR

Table 3.2.3 Coal production ('000 tonnes) by producer

Year	Maddingley Bacchus Marsh	Alcoa Anglesea	Loy Yang	Yallourn	Hazelwood	Annual Total
2012-13	18	913	28,921	12,885	17,118	59,854
2013-14	19	1,034	26,967	13,494	16,487	58,001
2014-15	19	-	27,624	17,171	16,144	60,957
2015-16	23	-	27,066	17,979	14,689	59,757
2016-17	45	-	27,752	17,674	10,624	56,095
2017-18	44	-	29,526	15,491	-	45,062
2018-19	54	-	27,033	15,169	-	42,256

Source: DJPR, statutory returns under the MRSDA.

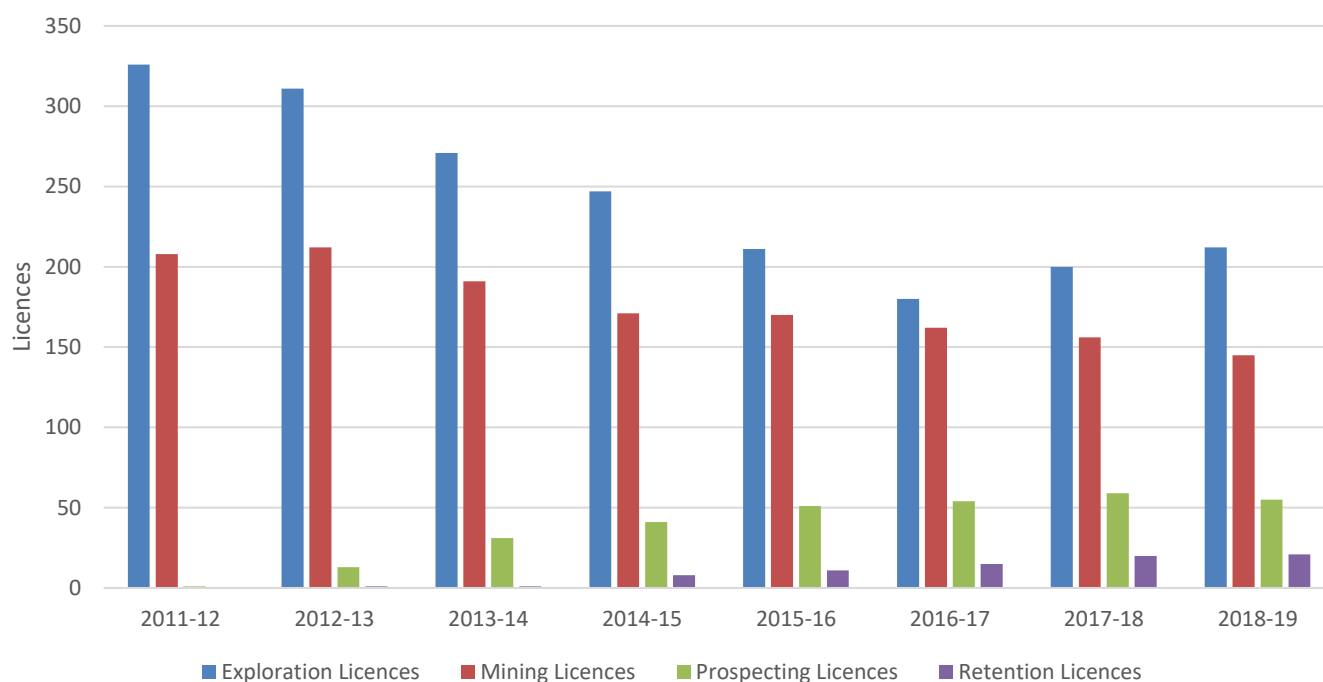
3.3 Mineral tenements

Table 3.3.1 Number of current licences by financial year

Licence Type	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Exploration Licences	311	271	247	211	180	200	212
Mining Licences	212	191	171	170	162	156	145
Prospecting Licences	13	31	41	51	54	59	55
Retention Licences	1	1	8	11	15	20	21
Total	537	494	467	443	411	435	433

Source: DJPR

Figure 3.3.1 Number of current licences by financial year



Source: DJPR

Table 3.3.2 Licence applications finalised (Granted, Withdrawn, Refused) in 2018-19

	Received	Granted	Withdrawn	Refused
Exploration Licence	67	36	1	0
Mining Licence	1	1	2	0
Prospecting Licence	14	14	4	0
Retention Licence	6	1	1	0
Total	88	52	8	0

Table 3.3.3 Licences renewed in 2018-19

	Received	Renewed*	Withdrawn	Refused
Exploration Licence	17	19	0	0
Mining Licence	28	22	2	0
Retention Licence	1	0	0	0
Total	46	41	2	0

*Some renewal completed in 2018-19 was received from previous financial years

Table 3.3.4 Licence applications granted by financial year

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Exploration Licence	41	37	37	17	21	63	36
Mining Licence	11	9	3	2	0	3	1
Prospecting Licence	12	18	13	12	11	12	14
Retention Licence	0	1	7	3	4	7	1
Total	64	65	60	34	36	85	52

Table 3.3.5 Licences renewed by financial year

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Exploration Licence	52	57	19	13	17	29	19
Mining Licence	14	28	14	10	15	26	22
Total	66	85	33	23	32	55	41

Source: DJPR

Figure 3.3.2 Exploration licences granted and renewed by financial year

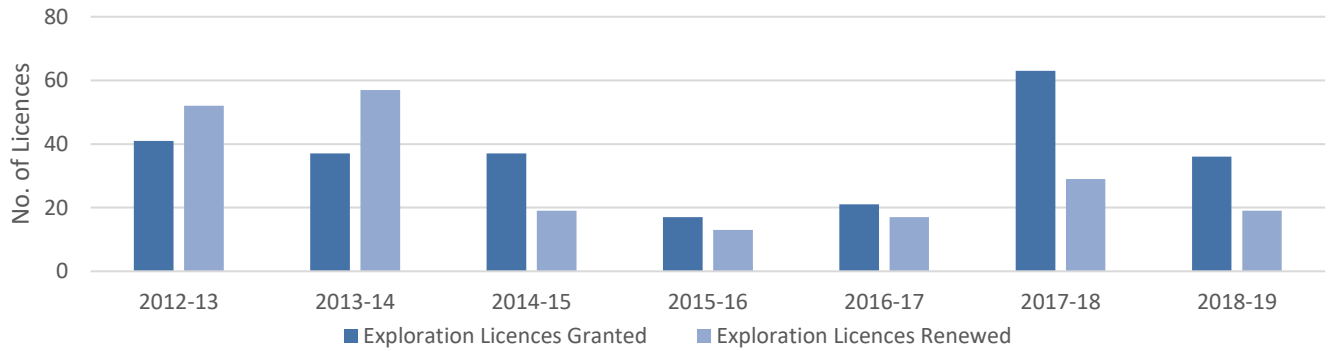


Figure 3.3.3 Mining licences granted and renewed by financial year

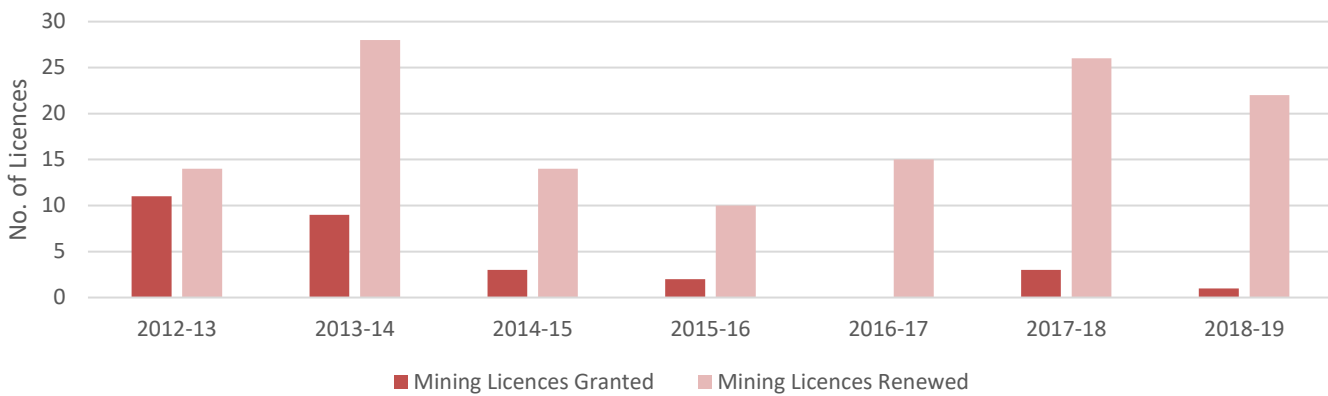


Figure 3.3.4 Prospecting licences granted by financial year

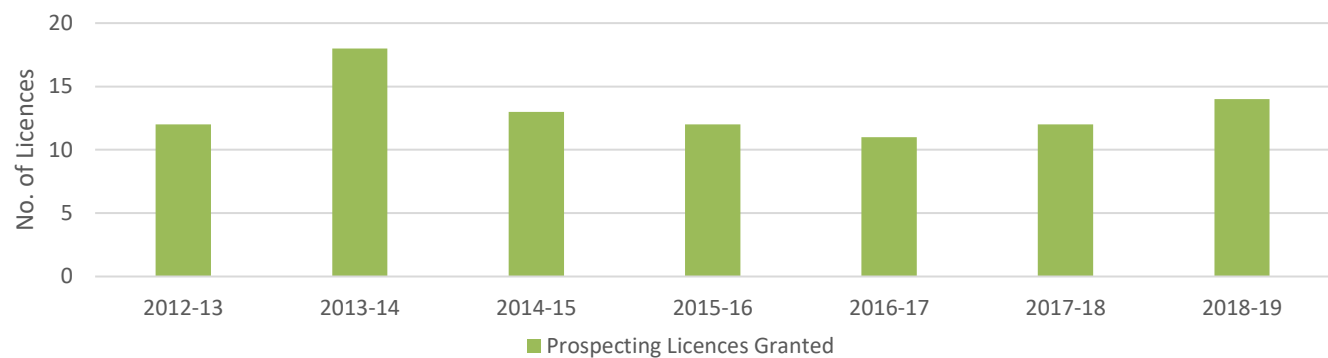
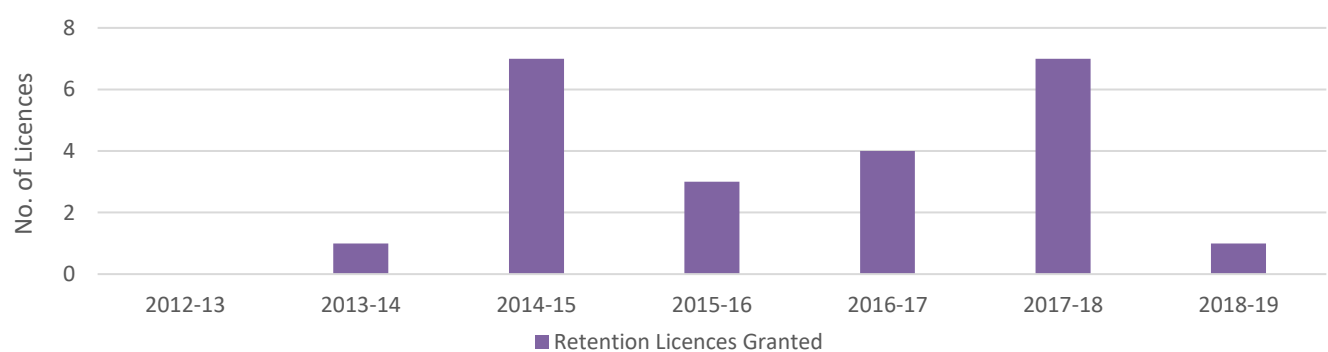


Figure 3.3.5 Retention licences granted by financial year



4 Petroleum, geothermal, offshore pipelines and greenhouse gas

Exploration for petroleum within Victoria's jurisdiction occurred in the offshore parts of the Otway and Gippsland geological basins. Production activity occurred in the Otway Basin.

Offshore activities occur within three nautical miles off the coast, as covered by Victorian legislation. Waters greater than three nautical miles offshore from the coast are covered by Commonwealth legislation and reported separately by Commonwealth Government agencies.

A legislative moratorium is in place for onshore conventional gas. Hydraulic fracturing is banned under Victorian legislation.

4.1 Gas production and storage

Gas production located within Victoria's three nautical mile zone.

Table 4.1.1 Gas production 2018-19

Condensate (bbl*)	Gas Production (MMscf**)	Gas Production (Petajoules^)	CO2 Prod. (tonnes)	Gas Injection (MMscf)	Comments
146,186	14,523	15.40	32,293	-	Ex wellhead figures

*bbl = barrels

**MMscf = million standard cubic feet

(Unit Conversion: 1 Sm³ of oil = 6.29 bbl and 1 Sm³ of gas = 35.3 Scf)

^ Convert Gas mmscf to petajoules using online sales gas converter: <https://www.santos.com/conversion-calculator/>

Table 4.1.2 Underground gas storage 2018-19

Condensate (bbl*)	Gas Storage (MMscf**)	Gas Storage (Petajoules^)	CO2 Prod. (tonnes)	Gas Injection (MMscf)	Comments
1.220	13,100	13.89	-	12,514	Storage

*bbl = barrels

**MMscf = million standard cubic feet

(Unit Conversion: 1 Sm³ of oil = 6.29 bbl and 1 Sm³ of gas = 35.3 Scf)

^ Convert Gas mmscf to petajoules using online sales gas converter: <https://www.santos.com/conversion-calculator/>

4.2 Drilling

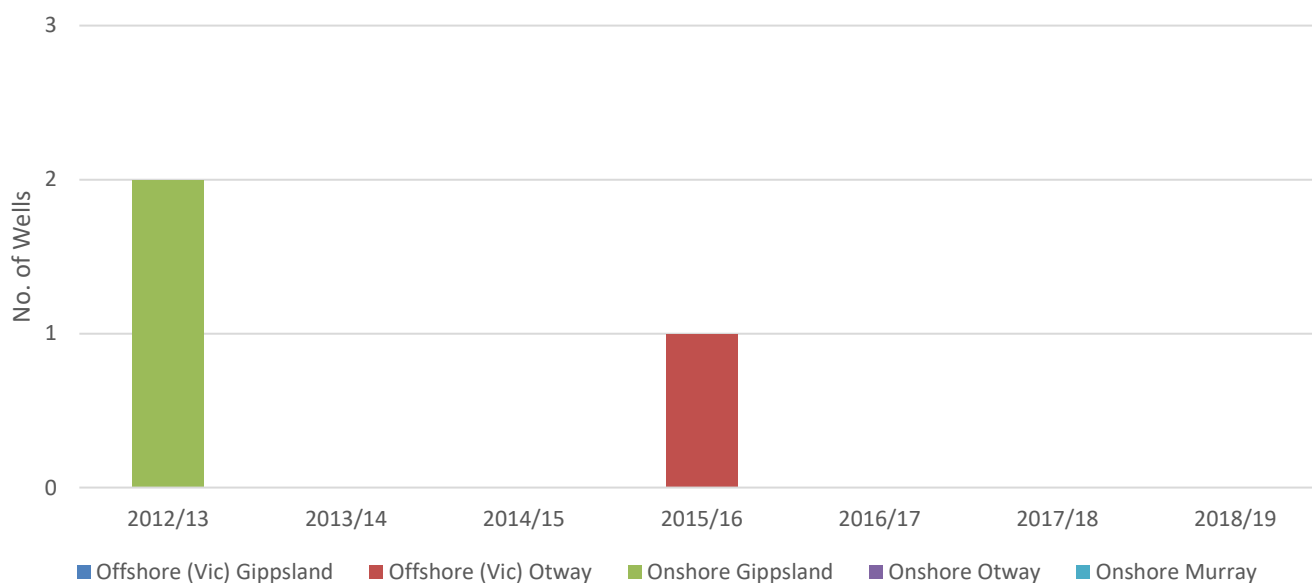
No drilling or seismic activities occurred on onshore petroleum tenements in 2018-19

Table 4.2.1 Number of exploration wells drilled in Victoria by financial year

Year	Offshore (Vic) Gippsland	Offshore (Vic) Otway	Onshore Gippsland	Onshore Otway	Onshore Murray	Total wells
2012-13	0	0	2	0	0	2
2013-14	0	0	0	0	0	0
2014-15	0	0	0	0	0	0
2015-16	0	1	0	0	0	1
2016-17	0	0	0	0	0	0
2017-18	0	0	0	0	0	0
2018-19	0	0	0	0	0	0
Total	0	1	2	0	0	3

Source: DJPR

Figure 4.2.1 Number of exploration wells drilled by financial year



Source: DJPR

4.3 Petroleum geothermal, offshore pipelines and greenhouse gas licences

In 2018-19, no Petroleum Exploration Permits, Retention Leases or Production Leases applications were received or granted.

Table 4.3.1 Overview of petroleum tenements current as at 30 June 2019

	Petroleum Exploration Permits	Petroleum Retention Leases	Petroleum Production Licences	Other Tenements ^	Total
Onshore	11	1	13	1	26
Offshore (Vic)	3	1	1	1	6

^Petroleum Special Drilling Authorisation, Petroleum Access Authority
Source: DJPR

4.3.1 Onshore

No onshore petroleum retention licence or exploration permit applications received or granted in 2018-19.

Table 4.3.1.1 Overview of onshore petroleum exploration permits by financial year

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Application Received	0	0	0	0	0	0	0
Granted	2	2	0	0	0	0	0

Source: DJPR

Table 4.3.1.2 Overview of onshore petroleum retention licences by financial year

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Application Received	0	0	0	0	0	0	0
Granted	0	0	0	0	0	0	0

Source: DJPR

4.3.2 Offshore (Victorian waters)

No offshore petroleum permits were received or granted in 2018-19

Table 4.3.2.1 Overview of offshore petroleum exploration permits by financial year

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Application Received	0	2	0	0	0	0	0
Granted	0	0	2	0	0	0	0

Table 4.3.2.2 Overview of offshore petroleum retention leases by financial year

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Application Received	0	0	0	0	0	0	0
Granted	0	0	0	0	0	0	0

Table 4.3.2.3 Overview of offshore petroleum production licences by financial year

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Application Received	0	1	0	0	0	0	0
Granted	0	0	1	0	0	0	0

4.3.3 Offshore pipelines

Table 4.3.3.1 Offshore pipeline licences applications received and granted (Victorian waters) by financial year

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Application Received	0	0	0	0	1	0	0
Granted	0	0	0	0	1	0	0

Table 4.3.3.2 Offshore Pipeline licences current as at 30 June 2019

Tenement	Number of licences
Offshore (Vic)	14

4.3.4 Greenhouse gas storage

There were no applications received or granted for greenhouse gas access permit during 2018-19.

Table 4.3.4.1 Offshore greenhouse gas assessment permit applications received and granted by financial year

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Application Received	0	0	0	1	1	0	0
Granted	0	0	0	0	1	0	0

4.3.5 Geothermal energy

As at 30 June 2019, there was one current geothermal energy exploration permit. No geothermal energy retention leases or production licences were granted in 2018-19. Geothermal energy activities in Victoria involve exploration only at this time.

Table 4.3.5.1 Overview of geothermal exploration permits by financial year

Description	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Application Received	0	0	0	0	0	0	0
Granted	0	0	0	0	0	0	0
Licence Relinquished	2	7	0	0	0	1	4
Current Licences	13	6	6	6	6	5	1

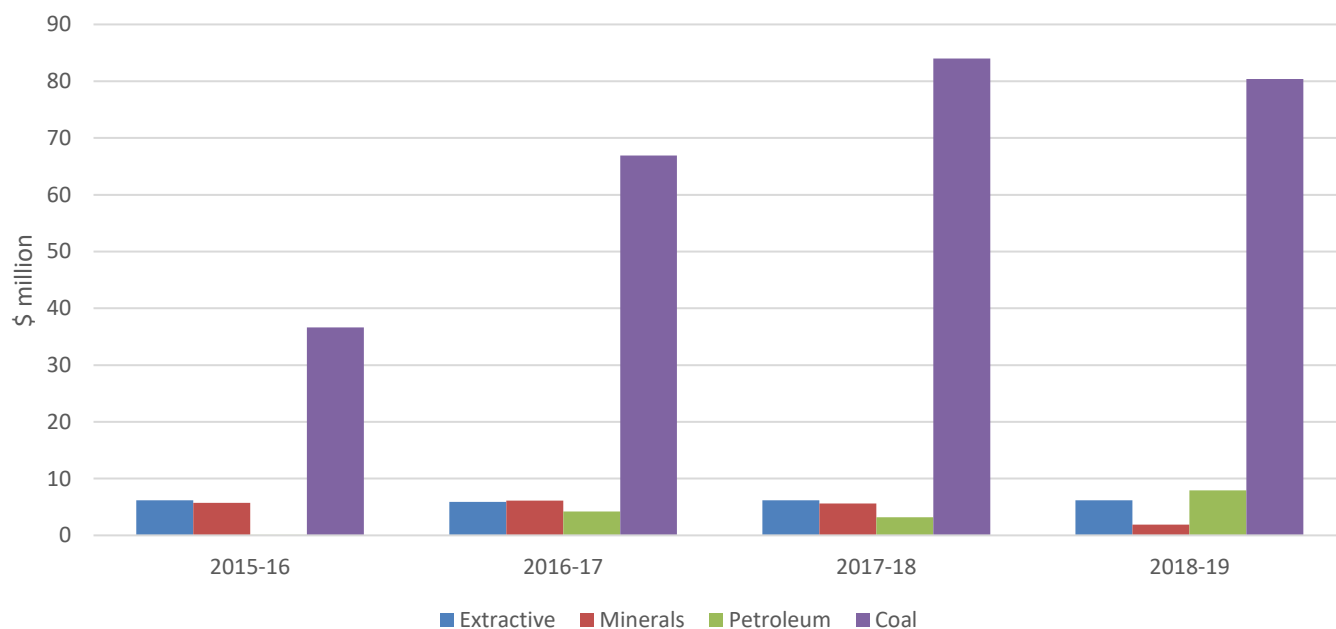
5 Revenue

5.1 Royalties Payable

Table 5.1.1 Royalties payable by financial year (\$ million)

Year	Extractive (\$ million)	Minerals (\$ million)	Petroleum (\$ million)	Coal (\$ million)	Total (\$ million)
2015-16	6.2	5.7	0.1	36.6	47.7
2016-17	5.9	6.1	4.2	66.9	83.1
2017-18	6.2	5.6	3.2	84.0	99.1
2018-19	6.2	1.9	7.9	80.4	96.4

Figure 5.1.1 Royalties payable by financial year (\$ million)



Source: DJPR

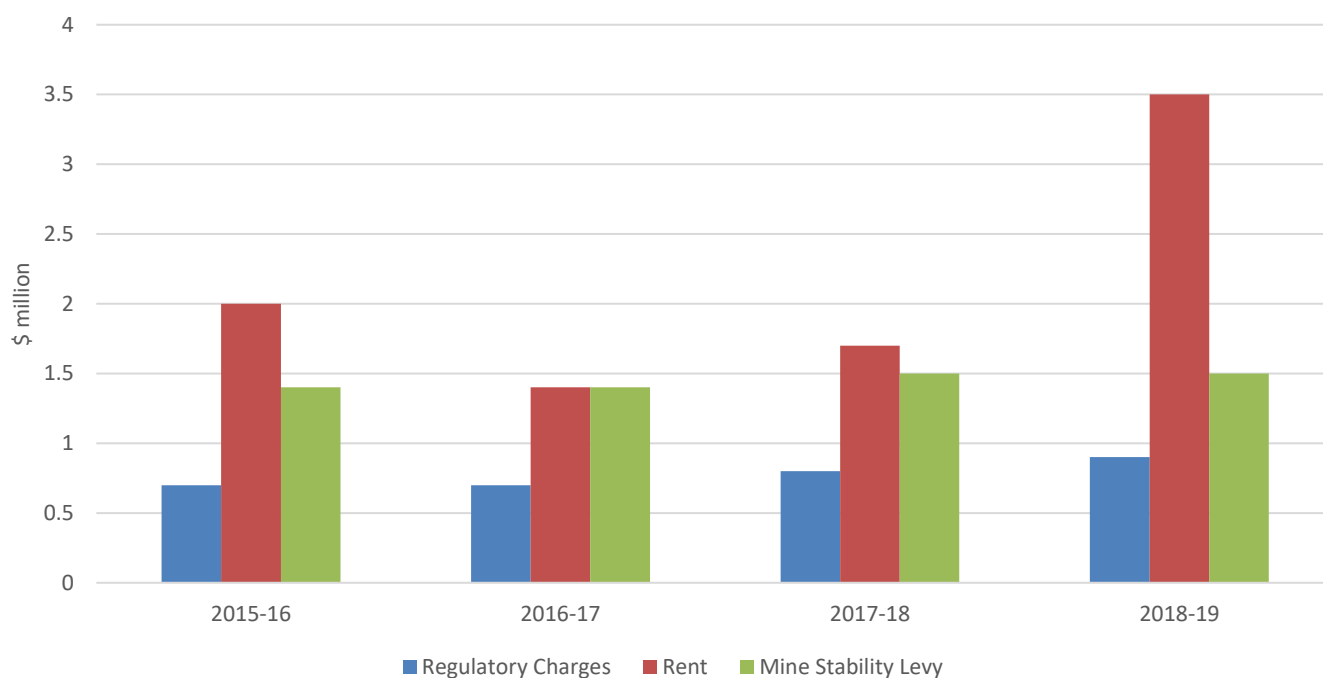
5.2 Regulatory Fees

Table 5.2.1 Regulatory Fees by financial year (\$ million)

Year	Regulatory Charges (\$ million)	Rent (\$ million)	Mine Stability Levy (\$ million)	Total (\$ million)
2015-16	0.7	2.0	1.4	4.1
2016-17	0.7	1.4	1.4	3.5
2017-18	0.8	2.8	1.5	5.1
2018-19	0.9	3.5	1.5	5.9

Source: DJPR

Figure 5.2.1 Regulatory fees by financial year (\$ million)



Source: DJPR

6 Rehabilitation Bonds

6.1 Bonds Held

The total monetary value of the rehabilitation bonds held by Earth Resources Regulation in 2018-19 was \$812.7 million.

Table 6.1.1 Value of rehabilitation bonds by authority type by financial year (\$ million)

Year	Extractives (\$ million)	Mining Licence (\$ million)	Exploration Licence (\$ million)	Prospecting Licence (\$ million)	Retention Licence (\$ million)	Total (\$ million)
2012-13	81.0	158.3	2.4	0.03	N/A	241.7
2013-14	90.9	183.4	2.1	0.1	0.010	276.5
2014-15	85.8	153.0	1.9	0.1	0.050	241.0
2015-16	88.6	239.6	2.0	0.2	0.1	330.5
2016-17	91.7	380.5	2.0	0.2	0.1	474.5
2017-18	92.2	717.7	2.0	0.2	0.1	812.2
2018-19	91.9	717.7	2.6	0.2	0.4	812.7

Source: DJPR

Figure 6.1.1 Extractive and Mining rehabilitation bonds held by financial year (\$ million)

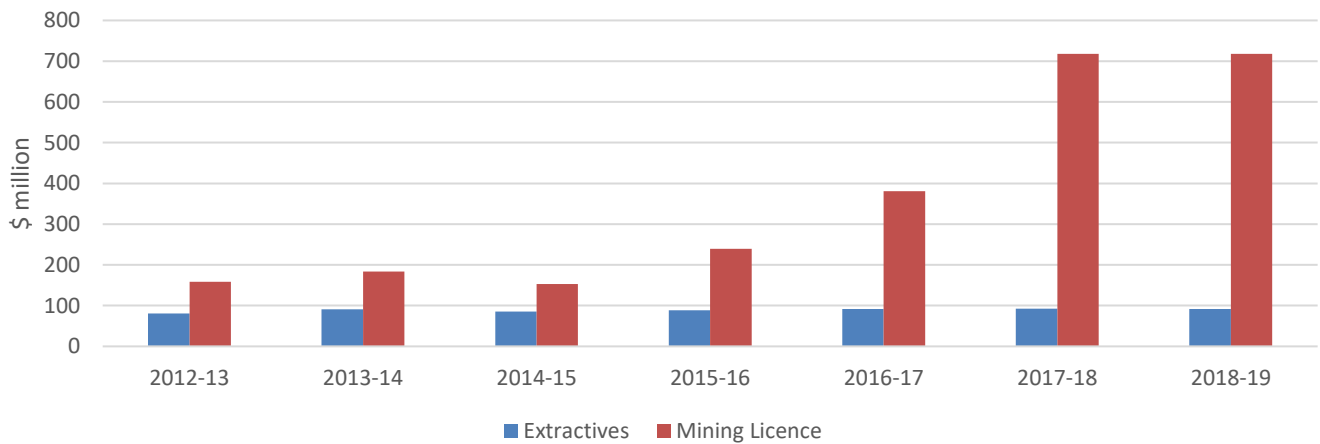
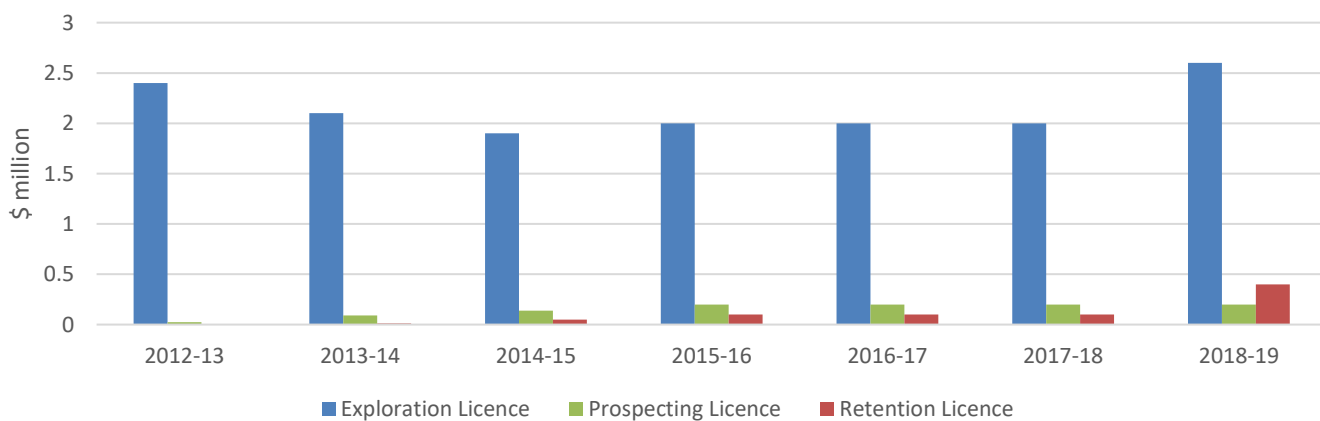


Figure 6.1.2 Exploration, Prospecting and Retention licence rehabilitation bonds held by financial year (\$ million)



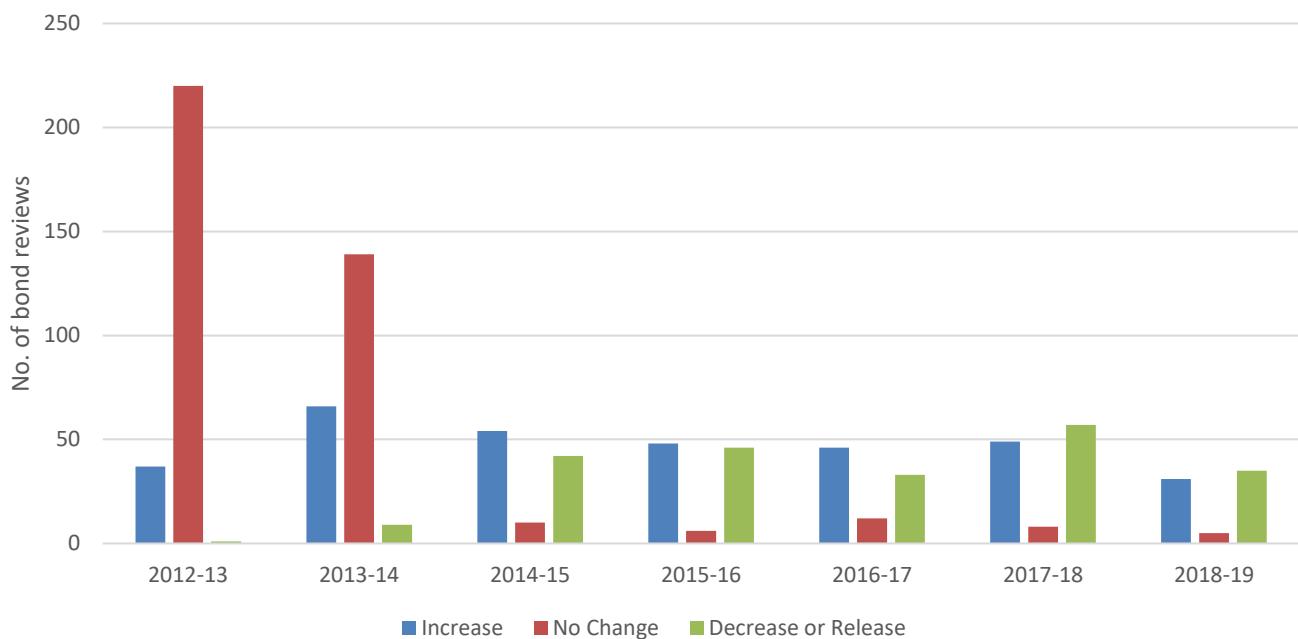
6.2 Bond Reviews

Table 6.2.1 Rehabilitation bond reviews by financial year

Year	Number of bonds reviewed	Result of review - increase	Result of review - no change	Result of review - decrease or release
2012-13	258	37	220	1
2013-14	214	66	139	9
2014-15	106	54	10	42
2015-16	100	48	6	46
2016-17	91	46	12	33
2017-18	114	49	8	57
2018-19	71	31	5	35

Source: DJPR

Figure 6.2.1 Outcome of bond reviews by financial year



Source: DJPR

7 Compliance

Earth Resources Regulation undertakes a compliance program to ensure that authority holders comply with their obligations. Monitoring, compliance and enforcement activities under the MRSDA are summarised in the table below.

Table 7.1 Compliance activities by financial year

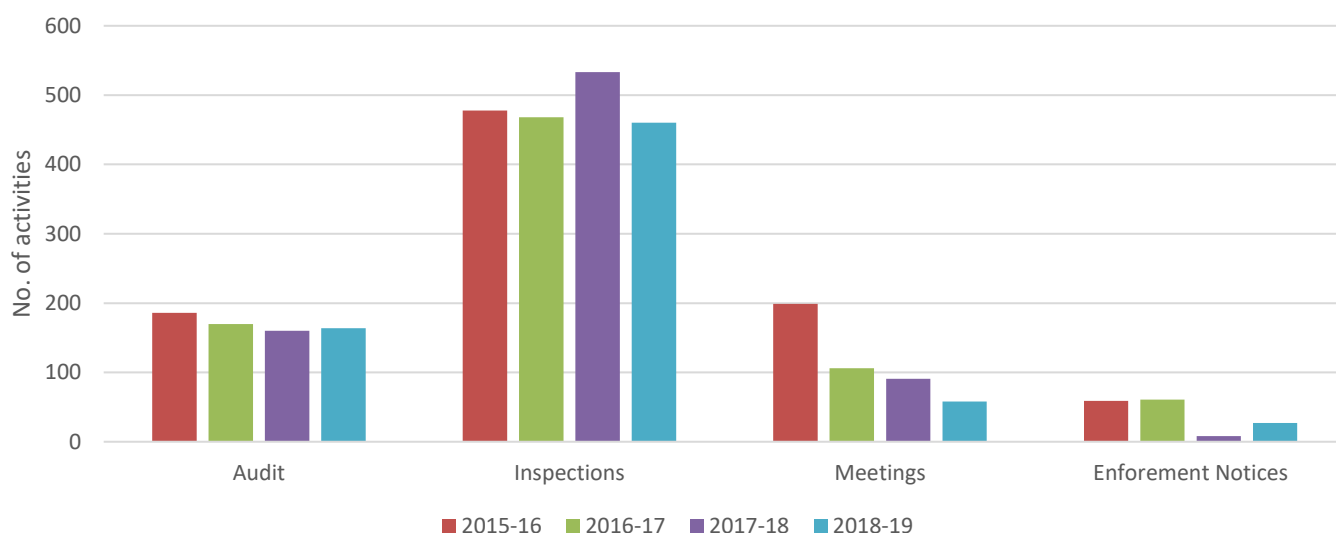
Activities	Audits	Inspections [^]	Meetings	Enforcement Notices *	Total
2015-16	186	478	199	59	922
2016-17	170	468	106	61	805
2017-18	160	533	91	8	792
2018-19	164	460	58	27	709

*MRSDA s110 and s110a Notices issued

[^] Inspection includes site closures and site visits

Source: DJPR

Figure 7.1 Compliance activities by financial year




Source: DJPR

Extractive Production & Royalty /Mineral Expenditure & Activity submission rate

As at 31st December 2019, 92% of licences have submitted the annual Extractive Production & Royalty /Mineral Expenditure & Activity returns.

Table 7.2 Production & Royalty / Mineral Expenditure & Activity 2018-19 report submission rate as at 31 Dec 2019

Licence Types	Licences required to submit annual return in 2018-19	Annual Return received	Annual Return not yet received	Submission Rate
Mining licence	157	143	14	91%
Exploration Licence	237	202	35	85%
Retention Licence	21	20	1	95%
Prospecting Licence	73	52	21	71%
Extractives	892	852	40	96%
	1,380	1,269	111	92%



Department of Jobs, Precincts and Regions

1 Spring Street Melbourne Victoria 3000

Telephone 1300 366 356

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