

LOST TIME INJURIES BY MINERAL MINED DURING 2013-2014

Mineral mined	No. of employees	Million hours worked	No. of serious LTIs	No. of minor LTIs	Total LTIs	Days lost	Incidence rate	Frequency rate	Duration rate	Injury index	No. of fatalities
Iron ore	61,737	111.91	177	15	192	20,463	3.1	1.7	106.6	183	2
Gold	18,593	35.28	76	14	90	7,742	4.8	2.6	86.0	219	3
Bauxite and alumina	7,408	14.39	49	9	58	4,930	7.8	4.0	85.0	343	0
Nickel	6,477	12.42	27	10	37	2,713	5.7	3.0	73.3	218	0
Base metals	2,649	4.73	16	2	18	1,679	6.8	3.8	93.3	355	0
Mineral sands	2,302	2.81	5	4	9	372	3.9	3.2	41.3	132	0
Diamonds	1,571	3.07	8	3	11	1,156	7.0	3.6	105.1	377	0
Salt	1,072	1.84	3	1	4	484	3.7	2.2	121.0	262	0
Construction materials	1,011	1.78	2	4	6	169	5.9	3.4	28.2	95	0
Silica and silica sand	667	0.49	5	0	5	492	7.5	10.2	98.4	1,000	0
Other	3,210	5.43	7	6	13	556	4.0	2.4	42.8	102	0
Surface metalliferous	99,373	179.12	340	62	402	36,900	4.0	2.2	91.8	206	4
Underground metalliferous	7,324	15.04	35	6	41	3,856	5.6	2.7	94.0	256	1
Total metalliferous	106,697	194.16	375	68	443	40,756	4.2	2.3	92.0	210	5
Coal	638	1.43	11	2	13	1,105	20.4	9.1	85.0	773	0
Total – all mining	107,335	195.59	386	70	456	41,861	4.2	2.3	91.8	214	5
Total – exploration	2,304	4.75	4	2	6	534	2.6	1.3	89.0	112	0
TOTAL	109,639	200.34	390	72	462	42,395	4.2	2.3	91.8	212	5

There were five fatal accidents in the Western Australian mineral industry during 2013-14

- An electrician was fatally injured during night shift at an iron ore processing facility. The deceased was apparently greasing an electric motor while the tripper conveyor was operating in automatic mode. He was caught between the motor cable termination box and an access ladder fixed to the tripper unit, which moved in an open access area.
- A worker was fatally injured while working with others to install a new 60 m long section of pipe to an existing tailings header. He was tightening bolts on the pipe flange in a shallow access trench at the edge of the tailings dam embankment. A similar trench was being excavated at the free end of the pipe in readiness for the next section. The free end of the pipe slid down the embankment, pinning the worker between the pipe and the trench walls.
- A worker was fatally injured, and another seriously injured, in an accident at a heavy equipment maintenance workshop. The fitters were completing the installation of the operator's cab for a surface miner after a rebuild. They were working directly beneath the 2.5 tonne cab, which was suspended from an overhead crane being controlled by one of them using the pendant. There was no spotter and neither could see the crane load indicator or rigging. The rigging apparently failed in overload and the cab descended onto them.
- A lone worker was using an LHD (bogger) to clean-up an underground development heading that had been fired the previous day. After partially bogging the face, it appears he dismantled from his machine and received fatal injuries when about 6 metres of the hanging wall collapsed onto him. The ore drive had been developed by air-leg mining methods and the installed ground support (spot bolting, friction rock stabilisers) was ineffective.
- A worker was fatally injured when he was trapped between the mast and frame of a forklift truck. The forklift had bottomed-out and was stuck on the crest of a ramp providing pedestrian access into a process building. He was attempting to lift the front of the forklift with a mobile crane and had positioned himself between the mast and frame of the forklift truck to attach a lifting sling to the mast, instead of the marked slinging points. It appears the control level for the mast's tilt cylinder was inadvertently activated, causing the mast to close and crush the worker.

DEFINITIONS

DURATION RATE

Average number of workdays lost per injury

FATAL INJURY INCIDENCE RATE

Number of fatal injuries per 1,000 employees for a 12 month period

FREQUENCY RATE (LTIFR)

Number of lost time injuries per million hours worked

INCIDENCE RATE

Number of lost time injuries per 1,000 employees for a 12 month period

INJURY INDEX

Number of workdays lost per million hours worked

LOST TIME INJURY (LTI)

Work injury that results in an absence from work for at least one full day or shift any time after the day or shift on which the injury occurred

MINOR INJURY

Work injury that results in the injured person being disabled for a period of less than two weeks

RESTRICTED WORK INJURY (RWI)

Work injury (not LTI) that results in injured person being unable to fully perform his or her ordinary occupation (regular job) any time after the day or shift on which the injury occurred, regardless of whether or not the person is rostered to work, and where alternative or light duties may be performed or hours restricted

RESTRICTED WORK INJURY FREQUENCY RATE (RWIFR)

Number of restricted work injuries per million hours worked

SERIOUS INJURY

Work injury that results in the injured person being disabled for a period of two weeks or more

SERIOUS INJURY FREQUENCY RATE

The number of serious injuries per million hours worked

METALLIFEROUS MINES

All mines other than coal mines are classed as metalliferous mines

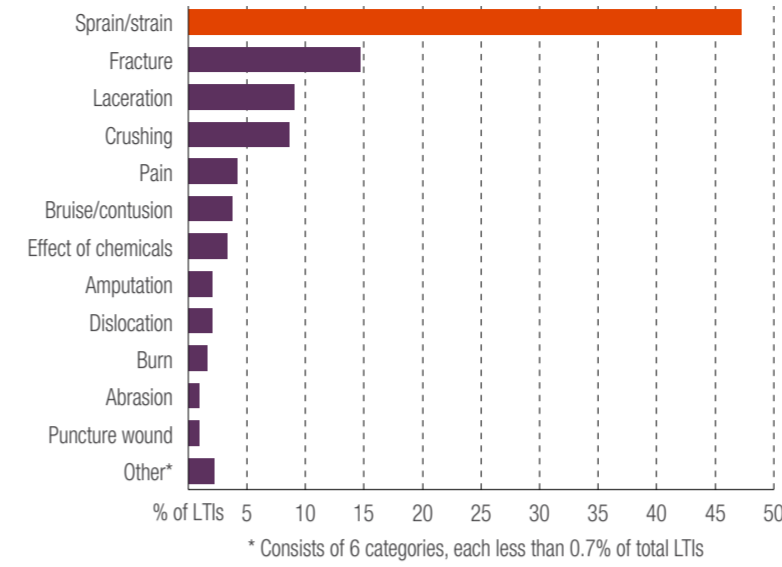
NOC

Not otherwise classified

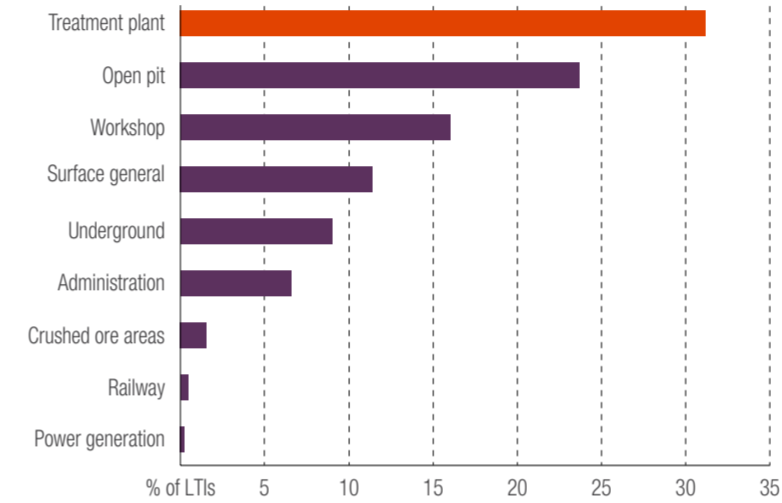
EXPLORATION

Exploration activities not under the control of a Registered Mine Manager, usually associated with exploration leases

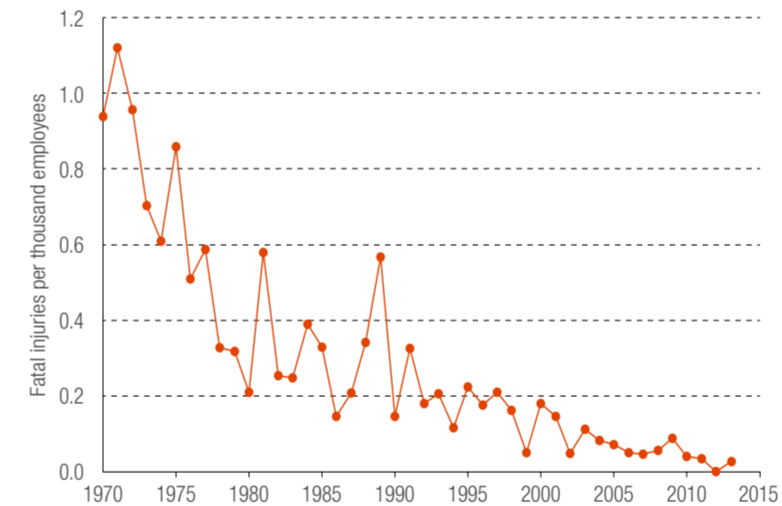
NATURE OF INJURY



LOCATION OF ACCIDENT



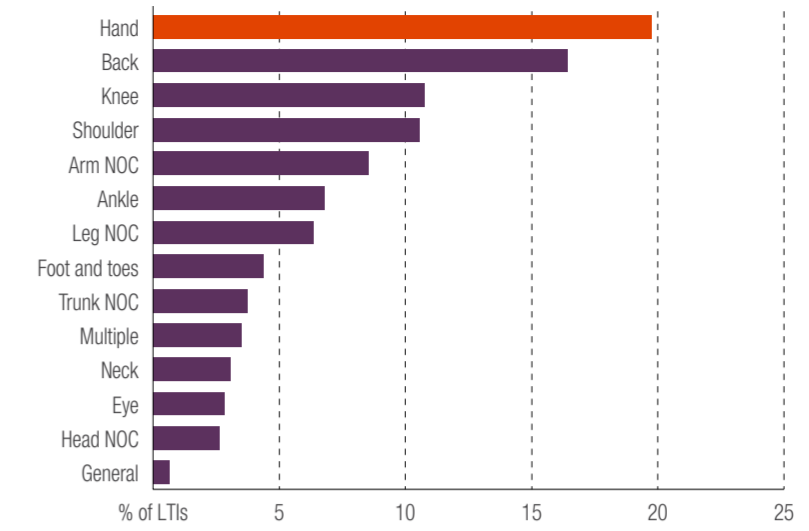
MINING FATAL INJURY INCIDENCE RATE



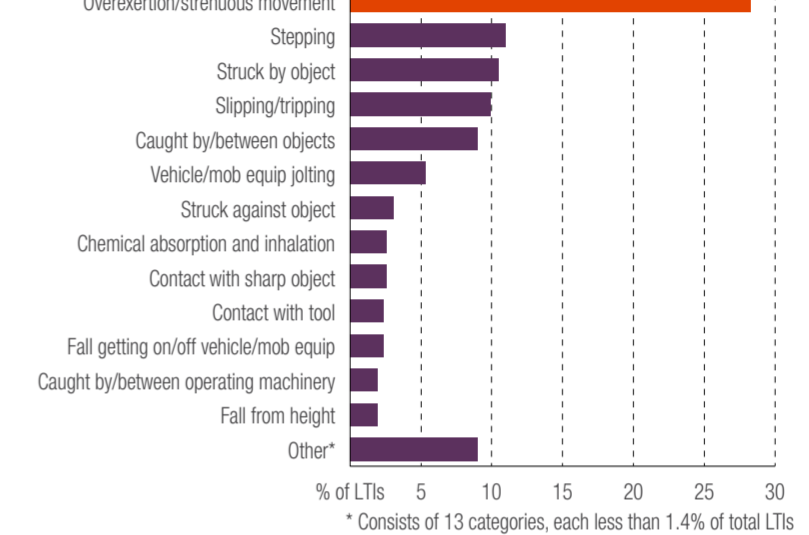
MINING LOST TIME INJURY FREQUENCY RATE BY LOCATION



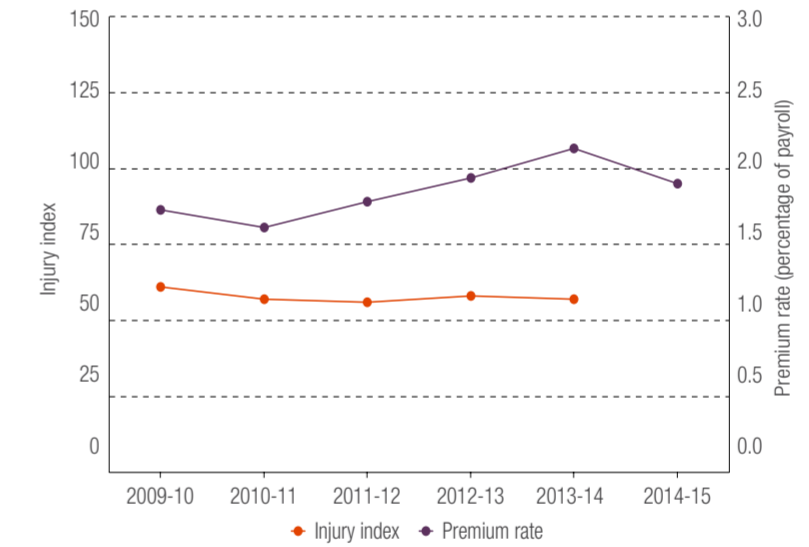
PART OF BODY



TYPE OF ACCIDENT



COMPARISON OF INJURY INDEX AND COMPENSATION PREMIUM RATE



MINING LOST TIME INJURY FREQUENCY RATE BY SEVERITY



STATISTICAL SUMMARY

MINING

- There were five fatal accidents in the Western Australian mineral industry during 2013-14. Of these, three occurred on gold mines (one underground and two on the surface), and two occurred at iron ore operations.
- There were 456 LTIs during 2013-14, 41 less than the previous year (497 injuries in 2012-13).
- There was an average workforce of 107,335 workers in 2013-14, an increase of approximately 1% over the previous year's average of 106,371.
- The overall LTI duration rate deteriorated by 4% during 2013-14, rising from 23.5 to 24.4.
- The overall LTI frequency rate for 2013-14 improved by 8%, falling from 2.5 to 2.3.
- The overall injury index improved by 1.7%, falling from 58 in 2012-13 to 57 in 2013-14.
- Serious LTIs in the mining industry during 2013-14 totalled 386, 25 less than for 2012-13, although the overall serious LTIFR remained unchanged at 2.0.
- The iron ore sector LTIFR deteriorated by 6% during 2013-14, rising from 1.6 to 1.7.
- The bauxite and alumina sector LTIFR improved by 11% during 2013-14, falling from 4.5 to 4.0.
- The gold sector LTIFR deteriorated by 4% during 2013-14, rising from 2.5 to 2.6.
- The nickel sector LTIFR remained unchanged during 2013-14 at 3.0.
- There were 912 RWIs during 2013-14, 9 less than the previous year (921 RWIs reported in 2012-13).
- The overall RWI frequency rate for 2013-14 deteriorated by 2%, rising from 4.6 to 4.7.
- The overall RWI incidence rate fell by 8% during 2013-14, from 9.2 to 8.5.

EXPLORATION

- There were no exploration fatalities in 2013-14.
- There were 6 LTIs reported during 2013-14 (23 less than the previous year).
- There was an average workforce of 2,304 workers, a decrease of 17% from the previous year's average. The overall LTIFR improved by 74% during 2013-14, falling from 5.1 to 1.3.
- There were 30 exploration restricted work injuries reported during 2013-14, resulting in a RWI frequency rate of 6.3, an increase of 9%, and a RWI incidence rate of 13.0, an increase of approximately 9%.

FOR MORE DETAILED INFORMATION ON SAFETY PERFORMANCE, SEE THE ANNUAL COMPILATIONS AT WWW.DMP.WA.GOV.AU/RESOURCESSAFETY IN THE ACCIDENTS AND INCIDENTS SECTION.

SAFETY PERFORMANCE

IN THE WESTERN AUSTRALIAN MINERAL INDUSTRY 2013-14