



CASSINI
RESOURCES LIMITED
ABN 50 149 789 337

ASX Announcement

31 January 2014

Activities Report for quarter ended 31 December 2013

Quarter Highlights

- Cassini to acquire up to 75% of the West Arunta (X17) Project prospective for Copper-Gold and Lead-Zinc mineralisation.
- Cassini receives priority applications over 3 additional exploration licences in West Musgrave surrounding BHPB's Nebo-Babel Deposits.
- Successful Exploration Incentive Scheme (EIS) application for West Musgrave drilling to be co-funded by WA Government.
- Currently reviewing options for 100% owned West Musgrave Project
- Progressing assessment of new prospective gold exploration projects in Nevada

Corporate

West Arunta Project (X17) Acquisition

On 9 December 2013 the Cassini announced it has executed a Share Sale Agreement to earn up to 75% of Crossbow Resources Pty Ltd ("Crossbow"), which owns 100% of the West Arunta Project ("X17" or the "Project") in Western Australia.

The X17 Project is located in the Gibson Desert region of north-eastern Australia and is considered prospective for two major geological targets

- i. Mt Isa-age, intrusion hosted, Cu-Au deposits in the northern part of project, and
- ii. Nifty-age, sediment-hosted, base-metal deposits (either Cu or Pb-Zn) in the south.

The Project is located at a major tectonic intersection of the juncture of Central Australian Suture with a major NE trending crosscutting structural zone, known as the Lake Mackay fault, or the Top-Up Rise Fault. There is known copper-gold mineralisation located along strike to the east (Mt Webb and Pokali prospects)

Recent analysis of existing Geological Society of Western Australia (GSWA) geochemical data indicates a large (40 x 20km) surface lead (Pb), arsenic (As) and antimony (Sb) anomaly, elements commonly associated with hydrothermal gold and base metal mineralisation. There has been some sub-surface validation of this anomaly provided by Pb and Zn anomalous Aircore drill holes located at its margin, but the primary anomaly has never been drilled and remains untested.

The geochemical anomaly is considered consistent with the signature of a world-class mineral system in context of current sampling performed.

Cassini Managing Director, Richard Bevan said *“We see the X17 project as an exciting, highly prospective greenfields exploration prospect. The project has been generated through the same rigorous exploration targeting process as our West Musgrave Project, and is consistent with our strategy of identifying de-risked, large-scale potential projects in under-explored, frontier regions of Western Australia.”*



Figure 1. Regional Project Location – X17

Forecast Project Milestones	Date
Native Title and Land Access Agreement	Completed Nov 2013
Initial Heritage Survey	March 2014
Cassini decision to progress to Stage 2	April 2014
Commence Initial Soil Geochemical Program	April/ May 2014
Complete Initial Program (including assay results)	July 2014
Proposed Phase 2 Exploration	
Focused infill geochemistry + potential Drill Program	Aug/Sep 2014

For further detail on the X17 Project and the transaction details, please refer to the Company’s ASX announcement dated 9 December 2013.

West Musgrave Project (100% Cassini)

New Tenement Applications in West Musgrave Region

The Company announced on 18 December 2013 that it had received confirmation from the WA Department of Mines and Petroleum (“DMP”) that it has been awarded first priority an exploration licence application that was part of a ballot process held on 22 November 2013.

The exploration licence application (ELA 69/3163) comprises three discontinuous blocks and complements three other recent tenement applications in the immediate area. The new and recent applications cover a combined area of 126km². This area of land was previously held by BHP Billiton

and is located within 5km of known mineralisation in the West Musgrave, including the BHP deposits Nebo and Babel, and other active companies in the area (Figure 2).

The Company looks forward to the grant of these new applications in this highly prospective region so that it can commence its exploration programs as soon as possible.

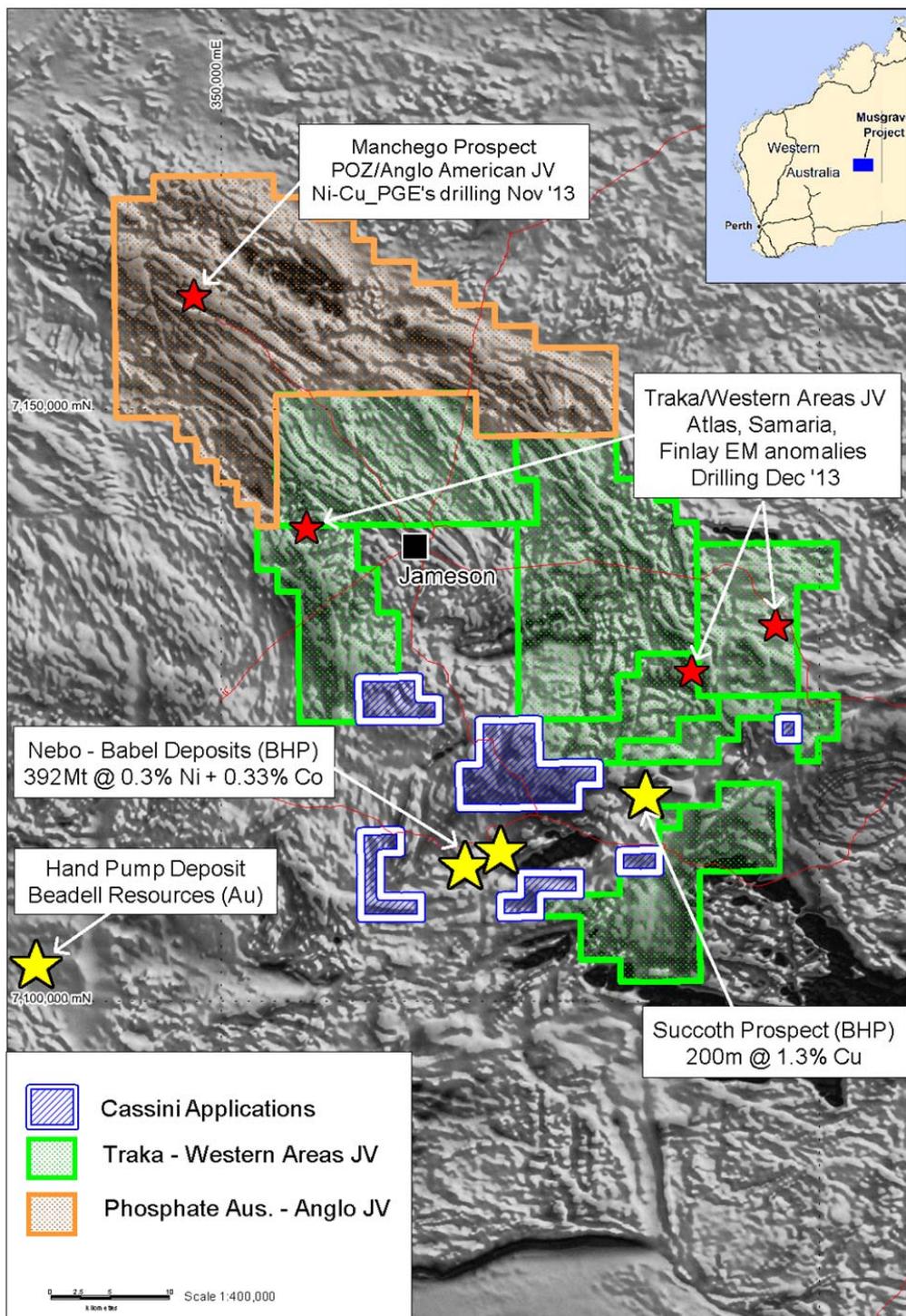


Figure 2. Location of first priority exploration licence applications

Successful Co-Funded Drilling Application

The Company was also pleased to receive notification from the DMP that its application for a Co-Funded Drilling programme at the West Musgrave Project was successful. The Company intends to use the funds of \$103,600 towards further drilling at the West Musgrave Project as well as first-pass drilling at several other conceptual targets along strike. The drilling is required to be completed within 12 months of the DMP offer. The Company would like to acknowledge the State Government of WA for supporting exploration in Western Australia through the Exploration Incentive Scheme and Co-Funded Drilling Programme.

Forward Exploration Strategy

The Company performed the maiden drilling program of the West Musgrave Project in August 2013. No additional on-ground exploration was conducted in the December quarter. The initial program confirmed:

- ✓ the Ni-Cu sulphide prospective geology of the exposed parts of the western Musgrave Province continues under cover into the Project area
- ✓ Cu and Ni anomalism confirmed over 400m strike
- ✓ magnetic anomalies in the project area are sourced by mafic intrusive bodies
- ✓ magmatic sulphides are forming in these rocks and the right type of highly-dynamic metal-concentrating magmatic processes are occurring
- ✓ the prospective basement in the project area occurs at relatively shallow depths and has not been significantly weathered, improving the chances of geophysical detection of sulphide mineralisation

The Company is currently assessing a number of options in order to progress this project forward.

Nevada Projects, USA

There was no on-ground exploration activity at the Goldstar and White Flats Projects during the December 2013 quarter. The Company has however been continuing to refine its Nevada Strategy.

This has:

- Developed relationships with local Partners with extensive Nevada experience and project pipelines
- Secured Projects with well-defined targets and conceptual models that provide a clear path to evaluation and discovery
- Minimised holding costs and expenditure commitments – to allow time and resources to build portfolio. A decision was taken to exit the Leonid project, which had high fixed annual expenditure commitments, and held higher technical risk than other opportunities available to the Company.
- Stepped outside the "trends" for room to grow our land position around potential discovery

Evaluation of new project opportunities in Nevada continues, and a field trip to some of these properties was done in mid-October 2013. A lease agreement was executed on key claims within one of the project areas, and documentation of another agreement is pending.

Figure 3. Location of Company's Nevada, USA Projects



Goldstar Project (CZI to earn-in to 70%) Project

The property hosts several mesothermal high-grade gold-silver veins that have historically been mined. The vein locations are well defined by outcrop and ground magnetics and high-grade mineralisation has been confirmed at surface via rock chip sampling.

A limited RC drilling program conducted in mid 2012 and intersected silver and gold mineralisation in the historic producing Morning Star vein. Three zones of veining were intersected, one intersection included 1.5 m @ 1.1g/t Au and 48g/t Ag. Silver grades across the interval from 13.7g/t to 48g/t

At Goldstar, a 3D model of the topography and historic producing Morning Star vein system was used to design a notional drilling program, providing a basis for a field visit to assess earthmoving requirements and obtain quotes from two drilling contractors. Detailed structural mapping will be used to refine this drilling program design in March. Goldstar is at comparatively low elevation and drilling can be carried out during the winter months. The Morning Star vein lies within a patented claim, which does not carry the ground disturbance permitting obligations to which the unpatented BLM lode claims are subject.



Fig 4. Historical mining of high-grade vein at Goldstar

White Flats Project (100% Cassini)

The White Flats project is located 16 km SSW of Elko and about 18 km NE of the Rain gold mine. The Project is not on any recognized 'trend' and represents a grassroots play in a relatively unexplored area. The target is Carlin-style gold mineralization at the Webb Formation-Devils Gate Limestone unconformity.



Anomalous stream sediments samples led to the discovery of several jasperoid outcrops, which carried strongly anomalous gold and high level associated trace elements. Soil sampling by BHP and Noranda defined gold anomalies up to 750 ppb Au over a strike length of roughly 2 km. Rock chip sampling also by BHP and Premier located altered carbonate and clastic sedimentary rocks containing up to 3,430 ppb Au.

The White Flats will be advanced on several fronts during the March 2014 quarter. Closed-spaced soil sampling is planned for November, to verify and infill the data compiled by Genesis Gold Corporation from old reports, as well as providing new multi-element data. We intend to drill test some of the known gold soil anomalies that were not effectively tested by previous explorers, which will require BLM permitting for ground disturbance and suitable weather/snow cover conditions. In tandem with this shallow-focused exploration, the Company will commence audio magnetotelluric (AMT) and gravity surveying when the spring thaw permits access to the property.

The Shallow targets forming the initial focus of our program are thought to represent leakage of gold-bearing hydrothermal fluids from a Carlin-type system in permissive carbonate stratigraphy at depth. The proposed geophysical surveys will provide a vector from the shallow mineralized structures to our primary target on this property: a high grade Carlin-type deposit.

ENDS

Further information:

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About Cassini

Cassini Resources Limited (ASX: CZI) is an Australian resource exploration company that successfully listed on the ASX in January 2012 with an asset package of prospective tenements and applications in Western Australia. In May 2012, Cassini added gold exploration projects in Nevada, USA.

Cassini has a dual focus, with nickel, copper and gold prospects in Western Australia and gold exploration projects in Nevada (USA). Cassini's priority Western Australian project is located in the highly regarded Musgrave region, with limited previous exploration and potentially high reward. Cassini aims to explore and progress its key projects, and to identify additional projects that are commercially attractive with the aim to increase shareholder value.

Competent Persons Statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr David Johnson, who is an employee of the company. Mr Johnson is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Johnson consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

APPENDIX 1 – TENEMENT SUMMARY – 31 DECEMBER 2013

1. MINING TENEMENTS HELD				
Tenement Reference	Location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
E77/1801	WA	Granted	100%	100%
E69/2907	WA	Granted	100%	100%
E69/2909	WA	Granted	100%	100%
E69/2911	WA	Granted	100%	100%
E69/2917	WA	Granted	100%	100%
E69/2918	WA	Granted	100%	100%
E69/3091	WA	Granted	100%	100%
E69/3137	WA	Granted	0%	100%
E69/3145	WA	Granted	0%	100%
Goldstar JV (61 claims)	Nevada	JV	70% (subject to spend commitments)	70% (subject to spend commitments)
White Flats Project (12 claims)	Nevada*	Leased	100% (leased)	100% (leased)
Cortez East (12 claims)	Nevada	Leased	0%	100% (leased)
Cerificate no. 1677-2012 (Impala 1)	Peru	Granted	100%	100%
Cerificate no. 1522-2012 (Impala 2)	Peru	Granted	100%	100%
Cerificate no. 1725-2012 (Impala 3)	Peru	Granted	100%	100%
Cerificate no. 2317-2012 (Impala 4)	Peru	Granted	100%	100%
Cerificate no. 2305-2012 (Impala 5)	Peru	Granted	100%	100%
Cerificate no. 2322-2012 (Impala 6)	Peru	Granted	100%	100%

*That portion of the southern 1/2 of Section 5, Township 32 North, Range 55 East lying southerly of the Humboldt River, containing 216.67 acres, more or less (Elko County, Parcel No. 006-07A-001).

2. MINING TENEMENTS ACQUIRED/DISPOSED				
Tenement Reference	Location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
Acquired				
E69/3137	WA	Granted	0%	100%
E69/3145	WA	Granted	0%	100%
Cortez East (12 claims)	Nevada	Leased	0%	100% (leased)
Disposed				
260 claims associated with Leonid JV below	Nevada	JV	70% (subject to spend commitments)	0%
E69/2910	WA	Relinquished	100%	0%
E77/1967	WA	Relinquished	100%	0%

3. BENEFICIAL PERCENTAGE INTERESTS HELD IN FARM-IN OR FARM-OUT AGREEMENTS				
Tenement Reference	Location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
Goldstar (JV with RenGold to earn in 70%)	Nevada	JV	70% (subject to spend commitments)	70% (subject to spend commitments)

4. BENEFICIAL PERCENTAGE INTERESTS HELD IN FARM-IN OR FARM-OUT AGREEMENTS ACQUIRED OR DISPOSED				
Tenement Reference	Location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
Acquired				
Nil				
Disposed				
Leonid (260 claims) (JV with RenGold to earn in 70%)	Nevada	JV	70% (subject to spend commitments)	0%

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/2013

Name of entity

Cassini Resources Limited

ABN

50 149 789 337

Quarter ended ("current quarter")

31 December 2013

Consolidated statement of cash flows

Cash flows related to operating activities	Current quarter \$A'000	Year to date (6 months) \$A'000
1.1 Receipts from product sales and related debtors	-	-
1.2 Payments for (a) exploration & evaluation (b) development (c) production (d) administration	(379) - - (168)	(756) - - (394)
1.3 Dividends received	-	-
1.4 Interest and other items of a similar nature received	5	11
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Other (provide details if material)	-	-
Net Operating Cash Flows	(542)	(1,139)
Cash flows related to investing activities		
1.8 Payment for purchases of: (a) prospects (b) equity investments (c) other fixed assets	(100) - -	(100) - -
1.9 Proceeds from sale of: (a) prospects (b) equity investments (c) other fixed assets	- - -	- - -
1.10 Loans to other entities	-	-
1.11 Loans repaid by other entities	-	-
1.12 Other (provide details if material)	-	-
Net investing cash flows	(100)	(100)
1.13 Total operating and investing cash flows (carried forward)	(642)	(1,239)

+ See chapter 19 for defined terms.

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

1.13	Total operating and investing cash flows (brought forward)	(642)	(1,239)
	Cash flows related to financing activities		
1.14	Proceeds from issues of shares, options, etc.	-	1,300
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	-	-
1.18	Dividends paid	-	-
1.19	Other (share issue costs)	-	(36)
	Net financing cash flows	-	1,264
	Net increase (decrease) in cash held	(642)	25
1.20	Cash at beginning of quarter/year to date	1,127	460
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	Cash at end of quarter	485	485

Payments to directors of the entity, associates of the directors, related entities of the entity and associates of the related entities

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	141
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

<p>Amount includes:</p> <ul style="list-style-type: none"> - executive remuneration (including superannuation) - geological consulting fees - non-executive remuneration - company secretarial, financial management and office rent to Grange Consulting, of which Mr Phil Warren is a director.

Non-cash financing and investing activities

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

n/a

+ See chapter 19 for defined terms.

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

- 2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

n/a

Financing facilities available

Add notes as necessary for an understanding of the position.

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities	-	-
3.2 Credit standby arrangements	-	-

Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	200
4.2 Development	-
4.3 Production	-
4.4 Administration	100
Total	300

Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.

	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	485	1,127
5.2 Deposits at call	-	-
5.3 Bank overdraft	-	-
5.4 Other (provide details)	-	-
Total: cash at end of quarter (item 1.22)	485	1,127

+ See chapter 19 for defined terms.

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Changes in interests in mining tenements and petroleum tenements

	Tenement reference and location	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements and petroleum tenements relinquished, reduced or lapsed	Leonid JV (260 claims, Nevada)	JV 70% (subject to spend)	0%
6.2	Interests in mining tenements and petroleum tenements acquired or increased	E69/3137 (Musgrave Region, WA)	Granted	0%
		E69/3145 (Musgrave Region, WA)	Granted	0%
		Cortez East (12 claims, Nevada)	Leased	0%

Issued and quoted securities at end of current quarter

Description includes rate of interest and any redemption or conversion rights together with prices and dates.

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	Preference securities			
	<i>(description)</i>			
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions			
7.3	+Ordinary securities	56,587,501	51,337,501 (5,250,000 subject to ASX escrow)	Fully Paid Ordinary
7.4	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs			

+ See chapter 19 for defined terms.

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

7.5	+Convertible debt securities <i>(description)</i>				
7.6	Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7	Options <i>(description and conversion factor)</i>	12,000,000	12,000,000 (unlisted) (6,250,000 subject escrow) to	Exercise Price 7,000,000 - 20 cents 2,000,000 - 25 cents 1,000,000 - 11.2 cents 1,000,000 - \$0.20 1,000,000 - \$0.30	Expiry Date 30 June 2015 30 June 2015 19 November 2017 9 April 2018 9 April 2018
7.8	Issued during quarter				
7.9	Exercised during quarter				
7.10	Expired during quarter				
7.11	Debentures <i>(totals only)</i>				
7.12	Unsecured notes <i>(totals only)</i>				

Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 5).
- 2 This statement does /does not* (*delete one*) give a true and fair view of the matters disclosed.

+ See chapter 19 for defined terms.

Appendix 5B
Mining exploration entity and oil and gas exploration entity quarterly report

31 Jan 2014

Sign here: Date:
(Director/Company secretary)

Print name: Steven Wood
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Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements and petroleum tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement or petroleum tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Financial Reporting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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