

Calendar 2015



Government of Western Australia
Department of Mines and Petroleum



Geological Survey of
Western Australia 



JANUARY 2015

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
			 New Year's Day 1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
 Australia Day 26	27	28	29	30	31	



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January

www.dmp.wa.gov.au/GSWA

*Geology and hydrology in unison.
Water collected from the Archean granite of Burra Rock, south of
Coolgardie in the Eastern Goldfields, was used for the steam engines of the
Woodline railways. Woodlines were a network of light-rail lines stretching
outward from Kalgoorlie–Boulder to bring in firewood and timber for the mines.
They operated for more than 60 years, with timber cutters' and gangers' families
living in isolated, ephemeral communities scattered through the goldfields*



FEBRUARY 2015

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	 GSWA Open Day 27	28	

February

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EXPLORATION
INCENTIVE SCHEME



Diamond core being extracted from the tube into core-trays at site FOR008 during GSWA's Eucla basement stratigraphic drilling project. The project is funded through the Western Australian Government's EIS program to provide an understanding of Precambrian geology under cover in greenfields exploration regions



MARCH 2015

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
30	31					1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

March



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*Making camp at the foot of a breakaway.
Vegetation picks out the ephemeral streams incising into
Permian Poole Sandstone, southern edge of the Billiluna Shelf,
Canning Basin. Table-topped Mount Bannerman is on the far horizon*



APRIL 2015

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		1	2	Good Friday 3	4	Geologists' Day Easter Day 5
Easter Monday 6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	Anzac Day 25	26
27	28	29	30			

April



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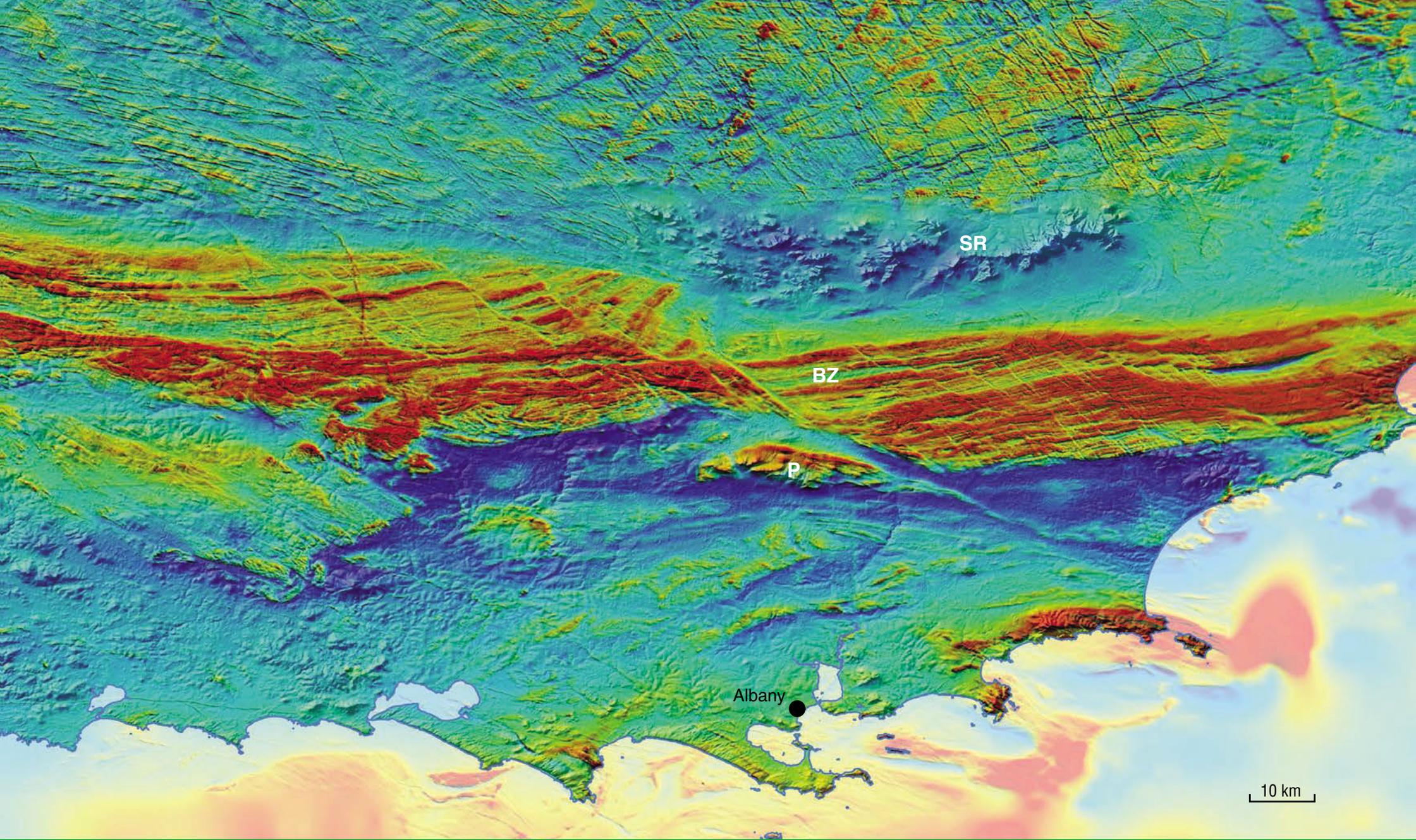


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The centenary of the Gallipoli landings on 25 April will be commemorated in 2015.

Top: A convoy of 38 troop ships is steaming past Whale Head Rock. Some 29 000 Australians and New Zealanders plus 7500 horses are heading to Egypt for training before joining the Imperial fighting forces in Europe. Image used with permission of the City of Albany

Bottom: Albany harbour today. Proterozoic granite of the Albany-Fraser Orogen forming Mount Adelaide is flanked by the expanding Albany township



MAY 2015

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31



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EXPLORATION
INCENTIVE SCHEME



May

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Aeromagnetic image draped over SRTM (Shuttle Radar Topography Mission) data. The topographic relief of the c. 1800 Ma metasedimentary rocks of the Stirling Range (denoted SR) is clearly visible, and the aeromagnetic data show the formation overlying the Archean Yilgarn Craton, just north of the strong magnetic signature (red and yellow) of the 1800–1625 Ma Biranup Zone (BZ) of the Albany–Fraser Orogen. A northwesterly trending fault zone offsets the Biranup Zone, and the 1190 Ma granitic orthogneiss of the Porongurup Range (P) can be seen to the south



JUNE 2015

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					



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June

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*Carbonaceous stringers in wave ripples,
with yellow staining from jarosite.
Permian Irwin River Coal Measures,
Irwin River South Branch*



JULY 2015

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		



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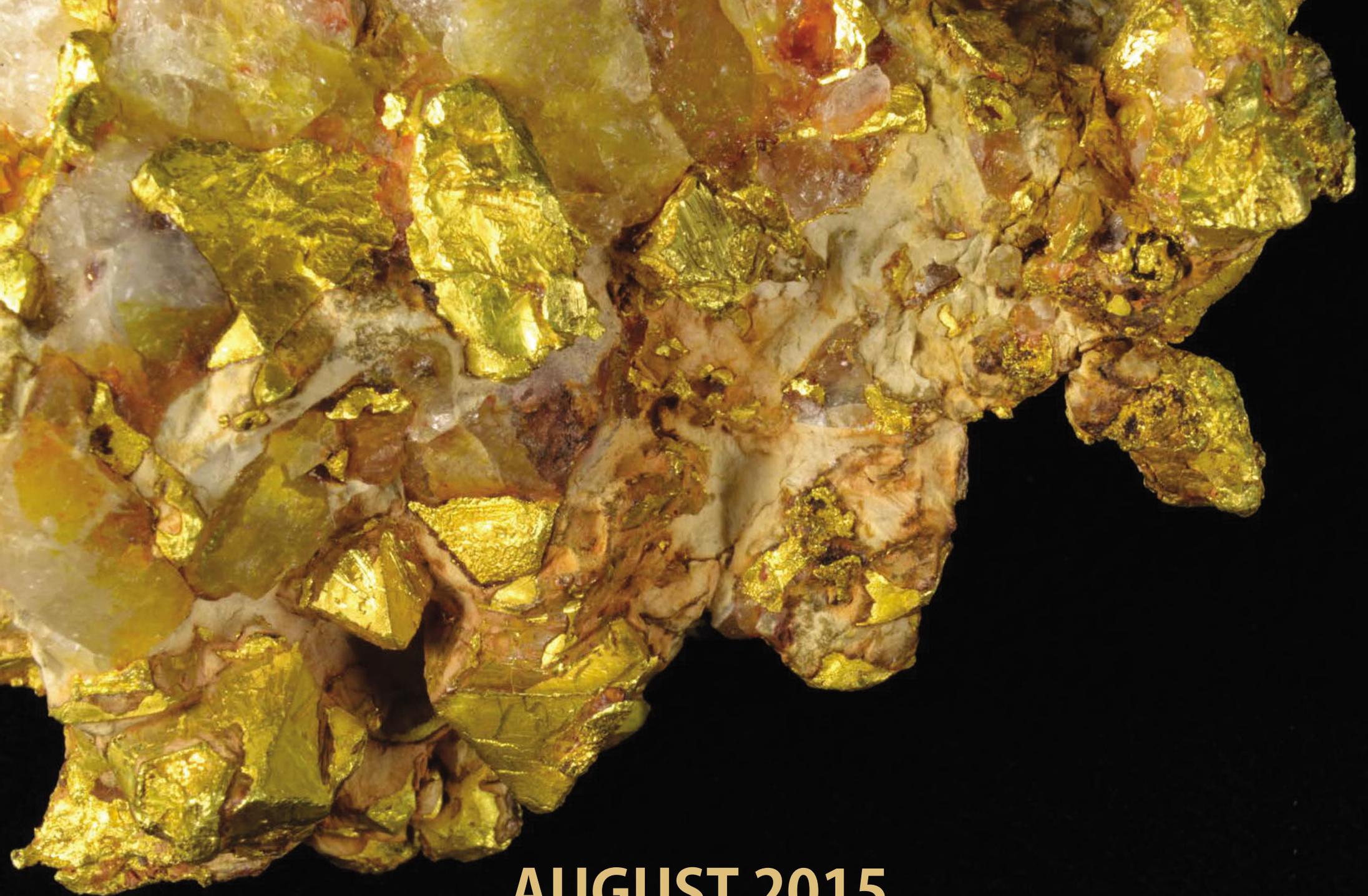
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July

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*Helicopter support is necessary for geochemical sampling
on the Timor Sea coast of northern Western Australia
(Kimberley Science and Conservation Strategy)*



AUGUST 2015
AUGUST 2015

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
31					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30



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August

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Gold-encrusted quartz–kaolinite specimen from the Geological Survey of Western Australia's collection. Crystalline gold with centimetre-sized octahedrons, and platy, lumpy, and hackly gold. Provenance: Queen Margaret Gold Mine at Bulong, 29.3 km east of Kalgoorlie; weight 1105.5 g; exhibited in the late 19th century at the Paris and Glasgow International Exhibitions



SEPTEMBER 2015

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
				Petroleum Open Day, Fremantle		
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				



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September

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Sinistrally bad stacking!
After exposure in the core-yard for a mere 60 years or so these wooden core-trays display both ductile and brittle deformation. Core-yards such as this abound in the Goldfields. Please contact GSWA if you have historic core suitable for donation to the JH (Joe) Lord Core Library in Kalgoorlie <www.dmp.wa.gov.au/GSWA>



OCTOBER 2015
OCTOBER 2015

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

International
Women in Geoscience Day

EARTH SCIENCE WEEK



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October

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Cavernous weathering gives rise to honeycomb-like textures, called tafoni, in the Middle Permian Coolkilya Sandstone (basal Kennedy Group) at Honeycomb gorge, eastern edge of the Kennedy Range



NOVEMBER 2015

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
30						1
2	3	4	5	6	7	8
9	10	GIS Day 11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29



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November

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*Turquoise sea and red-brown land.
Features from left to right: claypans with gypsum (birridas) on
Peron Peninsula, L'Haridon Sill (a sand and seagrass bank) cut by the
Hoult Channel, Peron Peninsula jutting northward, Faure and
Pelican Islands, Will Succeed Channel bisecting the Faure Sill,
Gladstone Embayment, eastern edge of Shark Bay (the mainland).
GSWA Bulletin 146 'The geology of Shark Bay' highlights this unique region.
Airphoto mosaic of Shark Bay from Landgate photos*



DECEMBER 2015

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	1	2	3	4 St Barbara's Day*	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25 Christmas Day	26 Boxing Day	27
28 Boxing Day hol.	29	30	31			

* Saint Barbara is the patron saint of miners



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December

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Hand-drawn GSWA Christmas card from a bygone era.
Card is dominated by view of Perth from Kings Park.
The inset depicts late Archean monzogranite at Yorkkrakine Rock,
30 km northwest of Kellerberrin. The marginalia show how
Western Australia was caught up in the Great War of 1914-1918.
The initials of members of staff, together with their
military insignia, are listed in the right-hand panel —
led by Government Geologist A Gibb Maitland

MINISTER FOR MINES AND PETROLEUM
Hon. Bill Marmion MLA

DIRECTOR GENERAL
DEPARTMENT OF MINES AND PETROLEUM
Richard Sellers

EXECUTIVE DIRECTOR
GEOLOGICAL SURVEY OF WESTERN AUSTRALIA
Rick Rogerson

The Geological Survey of Western Australia (GSA) is a Division of the Department of Mines and Petroleum. We carry out geoscientific studies that reveal the geological framework of Western Australia and the potential for mineral and energy resources. Our aim is to make Western Australia the preferred destination for local, national, and multinational explorers.

GSA manages the Exploration Incentive Scheme (EIS), a State Government initiative to encourage exploration in Western Australia for the long-term sustainability of the State's resources sector.

This initiative, originally funded at \$80 million over four years, has now been extended to June 2017, with total funding of \$130 million to stimulate increased private-sector resource exploration and ultimately lead to new mineral and energy discoveries. Most of the activities in the EIS are focused in under-explored greenfields regions.

For more information on EIS go to: <www.dmp.wa.gov.au/EIS>



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EXPLORATION
INCENTIVE SCHEME

Geological Survey of
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Most of the photographs for this calendar were taken by Geological Survey staff (not professional photographers) during our field activities that take us to remote and beautiful locations throughout the State. Thank you to the following photographers for the stunning images:

John Brett, Charlotte Hall, Simon Johnson, Tom Lenane, Arthur Mory, Paul Morris, Leon Normore, Catherine Spaggiari, and Stephen Wyche

Front cover image: The 'Saturn intrusion' lies in the northwest corner of BLACKSTONE 1:100 000 sheet, some 150 km east of Warburton and is identified as a strong, concentrically zoned, elliptical aeromagnetic anomaly about 10 km long. The only surface clues to its existence are small, isolated outcrops of olivine gabbro to olivine gabbro-norite with magnetite oikocrysts. Part of the Giles Suite of Mesoproterozoic age, west Musgrave Province

Back cover image: The rise and progression of stars across the Western Australian sky, interrupted by two lonely meteors

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