

High Potential Incidents at Grosvenor, Grasstree, Oaky North, and Moranbah North

Incident Number	Date	Time	Location	Description
GROSVENOR				
1	02/07/19	14:36	LW103 TG area and return roadway	LW103 cutting MG to TG - shearer paused at #115 by automated CH4 control system (from 12:03 - 14:13). At 14:17 recommenced mining towards TG; stopped at #139 at 14:27 inbye TG CH4 sensor reached 2.36%. OB sensor peaked at 2.52%.
2	03/07/19	05:03	LW103 TG area and return roadway	LW103 cutting MG to TG at 5:03am, shearer reached #144 when sudden increase in CH4 was observed IB TG CH4 sensor. Sensor reached peak of 2.7% CH4. At 5:11am, OB sensor peaked at 2.52%.
3	11/07/19	01:36	LW103 TG area and return roadway	The floor blower located at #55 roof support released approximately 2,463m3 after 1 hour and 4,790m3 7.5 hours (inclusive of the first hour). Mining past the area stimulated the release of gas into the mine atmosphere from a reservoir from beneath the target mining seam. Release of gas was substantial enough to trip power to the face and exceed 2.5% in the tailgate return.
4	14/07/19	11:25	LW103 TG area and return roadway	LW producing with the Shearer cutting from MG to TG. Shearer speed reduced due to elevated CH4 in TG roadway. Shearer at #82 at 11:15am IB CH4 hit 2.3% - stopped shearer. OB sensor peaked at 2.52%.
5	15/07/19	13:49	LW103	Ventilation change implemented on 15 July to reverse ventilation direction of perimeter roadway. At 13:49pm first part of ventilation change completed - increasing quantity of air along LW face -- goaf fringe increased and additional gas pulled at TG. IB TG peaked at 2.5%, OB TG 2.71%
6	21/07/19	13:05	LW103 TG area and return roadway	Control room operator noticed TG gas rising, LW contacted for maintenance; gas kept rising while shearer parked at MG. OB peaked at 2.51%; IB peaked at 2.27%.
7	22/07/19	12:45	LW103 TG area and return roadway	LW advancing TG shields when TG RW flushed in beside TG #149 causing temporary restriction in LW ventilation circuit. IB peaking at 2.85%. OB peaked at 2.89%.
8	23/07/19	15:44	LW103 TG area and return roadway	Cutting TG to MG, cavity formed on LW face from support #45 to #27. Methane spike in TG RW. IB peaked at 2.54 % CH4 and OB 2.71%. Gas drainage operating at peak capacity with all goaf drainage holes producing gas as planned.
9	24/07/19	12:16	LW103 TG area and return roadway	Dealing with cavity at TG area of LW103, shearer cut out TG area and retreated back to shield #131 so TG shields could be advanced. Shearer stopped at 12:03pm. At 12.15pm goaf fall took place. Peak of 3.39% CH4 IB TG RW. Readings remained above 2.5% for a period of 2min 35sec. OB peak of 3.12% CH4 at 12:24pm.
10	24/07/19	13:54	LW103 TG area and return roadway	Approx. 13:50 LW advanced last four TG shields. Cavity above #145-#149 had previously formed plus overrun of goaf alongside #149 which caused flushing. At 13:54 IB sensor peaked at 2.7% CH4; OB peaked at 2.55% at 2:01pm. Shearer at #115 and not operational at time.
11	17/08/19	15:29	LW103 TG area and return roadway	Initial cause of exceedance not clear; ventilation crew sealing 30m OB later informed ERZ controller that goaf fall led to 2.79% IB with TG dogleg 2.43% at 3:34pm.
12	19/10/19	16:31	LW103 TG area and return roadway	Shearer cutting to the TG when IB TG RW reached 2.2% stopping shearer haulage. TB peaked at 2.67%; barometer lowest point for the day (984hPa).

13	07/11/19	03:08	LW103	Shearer cutting to MG. At roof support #9 when floor blower activated at #22 and #55. TG >2% tripping power. Peak at 2.73%.
14	18/03/20	21:33	LW104 TG return roadway	Cutting into TG shearer positioned at #140 spiked at 2.56%CH4 IB TG sensor at 9.33pm. OB hit 2.3% at 10.00pm.
15	19/03/20	6:43	LW104 TG return roadway	Double chocking at #125-138 to carry out maintenance activities on LW exceedance of 3.01% occurred IB at 6.50 am. Shearer had been on stop for 175min prior to the event and was parked at #115. Differential Pressure increased due to flame arrestor blockage and flow decreased from +2000l/s to 1181l/s.
16	20/03/20	2:02	LW104 TG return roadway	Shearer stopped at #108 so maintenance could be undertaken to clean flame arrestor on GSM11, while cleaning IB went to 2.51% at 2:20am; peaked at 2.84% at 2:30am.
17	20/03/20	3:30	LW104 TG return roadway	While cutting into TG shearer was at #133 and created exceedance TG IB #38 sensor of 2.55%.GMS11 GR04V002 Differential pressure @ 11Kpa with flow @ 655l/s – believed to be incorrect readings after cleaning out the arrestor. Loss of +1200l/s correlates directly to the exceedance.
18	20/03/20	14:40	LW104 TG return roadway	CH4 @ LW104 TG IB #38 sensor exceeded 2.5%. Shearer had stopped for 20 minutes due to the CH4 inhibit from LW104 TG IB #38 sensor. GMS11 GR04V002A 20/03/2020 13:45 Differential pressure @ 14Kpa with flow @ 2209l/s – this is not normal goaf hole behavior.
19	22/03/20	10:22	LW104 TG return roadway	Cutting to TG at 9.15 am Shearer stopped at # 115 due to 6 hr max CH4 rise of 1.25 %. 67 min later 2.54% 345m OB in TG104 RW. Goaf drainage plant tripped for 12 minutes due to Electrician carrying out a manual O2 Gas Calibration on gas plant Stream # 3. Was reset immediately with all pumps starting and ran up to full suction pressure. The bridge failed causing the plant to trip, on restart of the plant it tripped again on low inlet pressure.
20	23/03/20	6:33	LW104 TG return roadway	Shearer stopped at #70 due to TG gas level from 05.31. LW 104 OB #37 3-4ct reached 2.5% at 06:33am; peak of 2.55% at 06:56am. No shield movement during the incident. GMS11 GR04V002A 23/03/2020 06:33 running normally. Double doors in 40ct failed due to a potential goaf fall pressure and allowed 6-8m3/s to leak through the goaf. LW104 TG OB sensor #37 exceeded 2.5% due to a portion of C hdg ventilation quantity being drawn through the TG goaf fringe via 40ct.
21	04/04/20	2:22	LW104 TG return roadway	Cutting from TG to MG when shearer lost power due to #149 reaching 2% at 1.05am. Restarted once at 1.9% at 2.09am. Cavity between #146-148 meant shearer relocated to #127 and TG shields brought into assist with cavity management. Goaf stream flushed over the tailgate drive resulting in a peak reading of 2.97% methane at the section 243A (#149).
22	6/04/2020	11:31	LW104 TG return roadway	Shearer cutting MG to TG stopped at #115 shield for 20 min for exceedance at 3-4ct B Hdg OB return monitor. Goaf fall added additional CH4 make into the IB C Hdg roadway. ERZ Controller inspected the C Hdg roadway and found brattice had been damaged from the event and repaired it. Brought general body TG CH4 concentration to below 2.5%.
23	7/04/2020	14:21	LW104 TG return roadway	Shearer cutting MG to TG stopped at #115 shield for approximately 20 minutes for CH4 exceedance at TG104 3-4ct B Hdg OB return monitor. Due to additional methane make in IB C Hdg roadway and the chainage 3960m CH4 sensor recording 2.04%. Max of 2.52%.
24	21/04/2020	0:58	LW104 TG S243A Sensor TG Shield	At 12:58am LW104 had an exceedance of >2.5% on the S243A Sensor on #149. Shearer at #118 heading into TG. CH4 peaked at 3.08% at 01:04am. The 400m sensor in the TG reached a peak of 1.48% at 1:08am. Goaf hanging up in TG roadway approximately 20-25m and sitting back 5m from back of #149.
25	21/04/2020	1:54	LW104 TG S243A Sensor TG Shield	After first event CH4 had dropped and steadied. Shearer was cutting at 1:53am. The S243A sensor went over again at 1:54am and peaked at 2.55%. Shearer had only moved from #118 – #134. Butcher curtain at #145 altered to get a more even flow of air in back walkway. Brattice was installed after the first event to limit the impact of goaf on the TG area.

26	21/04/2020	13:06	LW104 TG S243A Sensor TG Shield	Shearer was cutting in from TG and stopped at #141 shield when CH4 exceedance tripped AFC and Shearer. Exceedance of 2.5% less than 1 min and peak of 2.66%.
27	21/04/2020	23:06	LW104 TG S243A Sensor TG Shield	Shearer cut out TG and heading back to MG. Stopped at #144 when a CH4 exceedance tripped AFC and Shearer. The sensor on TG shield canopy exceeded 2% CH4; peaked at 5.04%.
GRASSTREE				
1	28/07/2019	13:10	LW909 Approx. 7ct (CH665)	A diesel powered compressor on the surface tripped out due to a radiator hose failure / over temperature / loss of coolant. the Compressor was powering a goaf drainage venturi set.
2	25/10/2019	18:35	LW808 TG heading 19-20ct	Caving of LW led to high emission of CH4 which were ineffective to control exceedances.
3	11/01/2020	00:29	LW808 Approx. MG Chainage 2289m	Goaf fall flushed goaf atmosphere over TG drive motor gas sensors. TG weighting evidence and LW had recently retreated through a fault. Goafing took place 00.26am with exceedance at 00.29am and peak at 3.6% at 12:32AM. No other face or return sensors recorded >2.5% CH4 prior to, or after the event.
4	22/02/2020	05:30	LW808 A heading TG 808 10-9 ct	Shearer had left TG and was at #193 when exceedance occurred. TG drive and shields were beginning to push; exceedance due to gas purged from goaf, tripped power once hit 2% with peak of 3.05% with recording of undulating gas concentration.
5	20/03/2020	04:43	LW808 A heading TG 808 6 ct	S243a sensor recorded CH4 over 2.5% at about TG intersection 6ct with the TG RW. Shearer had left TG after completion of TG shuffle and was at #172 when exceedance occurred. Exceedance believed to be due to CH4 being purged the goaf due to the ventilation changes from shield positions and movements.
6	20/03/2020	06:08	LW808 A heading TG 808 6 ct	S243a sensor recorded CH4 over 2.5% at about TG intersection 6ct with the TG RW. Shearer had left TG after completion of TG shuffle and was at #185 when exceedance occurred. Peak reading of 3.72% for 8 minutes.
7	20/03/2020	12:00	LW808 A heading TG 808 6 ct	S243a sensor recorded CH4 over 2.5% at about TG intersection 6ct with the TG RW. Shearer had left TG after completion of TG shuffle and was at #185 when exceedance occurred. Immediate trip of power to AFC at 2%, peak of 4.27% for 15 min. Flaps installed/adjusted at 193 to TG. Goaf drainage hole was late to become active which contributed to exceedance.
8	24/03/2020	02:40	LW808 A heading TG 808 6 ct	S243a sensor recorded CH4 over 2.5% at about TG intersection 6ct with the TG RW. Shearer had left TG after completion of TG shuffle and was at #174 when exceedance occurred. Peak of 2.57%.
9	25/03/2020	17:49	LW808 A heading TG 808 5-6 ct	S243a sensor recorded CH4 over 2.5%. Shearer had left TG after completion of TG shuffle and was at #182 when exceedance occurred. The gas accumulation did not present as exceedance at the TG drive gas sensors or at a TG roadway gas sensor positioned further Outbye. Around 1.6% was recorded further outbye. Trip power at 2% peak of 2.63% for 34 min as gas layering cleared. Gas exceeded 2.5% five times during that period.
10	6/04/2020	11:15	LW808 A heading TG 808 3-4ct	S243a sensor recorded CH4 over 2.5%. Shearer had left TG after completion of TG shuffle and was at #183 when exceedance occurred. The gas accumulation did not present as exceedance at the TG drive gas sensors or at a TG roadway gas sensor positioned further OB. Around 1.9% was recorded further OB. Trip power at 2% peak of 4.37% for 26 min when gas layering cleared; multiple exceedances (>2.5%) during this time.

11	11/04/2020	21:25	LW808 A heading TG 808 2-3 ct	Sensor on #197 recorded >2.5% v/v methane cut to gas purge due to caving. Trip of power to AFC and shearer at 2% as per requirements. The gas accumulation did not present as exceedance at the TG drive gas sensors or at the dog leg sensor positioned further outbye. Around 1.44% was recorded further outbye. A peak reading of 4.18% was recorded during a period of 65 minutes where the concentration fluctuated as the gas layering cleared.
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OAKY NORTH

1	6/12/2019	17:51	LW 501 AFC TG Driveframe	LW; shearing into the TG and cutting into a stub in the block side - airflow going into stub and moving the goafstream exit point up the face towards the MG. Peak reading of 2.84 % CH4 recorded - power tripped correctly before this. Gas back to 0.55 % when stable.
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MORANBAH NORTH

1	20/07/2019	12:00	LW604 TG drive	Methane exceedance peaking at 3.36% at LW TG drive. Shearer cutting into TG when goaf flushing caused a methane exceedance at the TG drive tripping power. Goaf hole not yet online but in goaf. Floor emissions in goaf contributing to exceedance.
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