

Wednesday, 16th July, 1986

11.10 am P. Reed was notified by G. Mason that dust clouds had been seen.

11.15 am Rang D. Kerr to explain the situation as reported to me. Told him to bring Rescue Teams immediately. J. Duncan, G. Ziebell proceeded down to the Main Dip to inspect stoppings and condition of the mine.

11.17 am Mick Caddell, J. Dullahide went down through Acky portal to reach men in 3 South.

11.20 am Call from 3 South - Instructed them to proceed to Acky Section and to meet M. Caddell and proceed to the surface, via Acky portal.

11.24 am Call from J. Duncan, very dusty strong smell.

11.25 am Call from D. Clancey - R. Edelman on surface at Acky portal - OK but shook up.

11.31 am Rang No. 2 Underground - Instructed K. Selff to get all Mines Rescue personnel out of No. 2 Underground.

11.34 am J. Duncan rang up, from Dip 9, asking for a safety light - P. Rose took it down.

11.35 am M. Caddell rang up, to say, he had met up with - T. Vivian, J. Anderson, J. Price, C. Hughes and S. Gamble he said, this is everyone. I instructed them to proceed to the surface, Via Acky.

11.39 am J. Brady said, he has asked electrician to restore power in the cut, to re-activate monitoring system.

11.41 am P. Rose at end of Dip 1. J. Duncan and G. Ziebell will meet him there, he will give them the safety lamp and P. Rose will then proceed to the surface.

11.44 am J. Brady and T. Faber suggested, brattice damaged area to the fan, and they will run on diesel at a reduced rate

11.48 am Told Lee Dingly to load up tray, with all materials to build stoppings.

11.50 am P. Rose rang up, to say, that

11.51 am Call from J. Duncan, he said, he was at the Old 4 South D/H area, he said, he could not go any further due to dust, fire fighting equipment scattered around. Instructed him to withdraw.

11.55 am J. Brady took 4 "SSR 16B" to Mines Rescue Brigade - asked about further rescuers from 3 South area.

11.58 am M. Caddell arrived - told him to see J. Brady.

12.00 pm M. Caddell and J. Dullahide left surface to proceed through Acky section to 3 South to retrieve extra bratticing apparatus.

12.02 pm Told Lex Henderson to send T. Vivian and C. Hughes to check water supply in the million litre tank.

12.05 pm P. Rose asking about J. Duncan and G. Ziebell - told him they are walking out supply road - 1st Rescue Team entered the mine.

12.07 pm P. Rose rang up, to say, that J. Duncan, G. Ziebell and C. Bayles are on the surface.

12.10 pm J. Duncan and G. Ziebell on the surface, they briefed J. Brady.

12.14 pm Police arrived - L. Cumner briefed them.

12.15 pm J. Brady and L. Cumner left - inspect fan - also reported that monitoring system should be working soon.

12.19 pm Nick Pickering - Boot end Dip 2 section - stopped rover - no monitoring. He told me his planned route. Back to Supply Road, will then ring from phone boot end at Dip. He asked what to do. I told him to keep going and asked him the condition of the team, he said O.K.

12.25 pm J. Brady showed High Co from fan drift, +700 ppm. Men working on fan, withdrew on instruction from J. Brady. Instructed J. Duncan to obtain Higher range Co and Co,

12.26 pm P. Rose on surface. No one left in cut.

12.28 pm Oxygen put on D. Beckett appears to indicate effects of CO.

12.35 pm L. Graham rang from Dip section Underground store - reported +700 ppm Co, Nil CH<sub>4</sub>. He said, he still had the Myne bus with them. D. Kerr talked to L. Graham and told him to leave the Myne bus and to proceed on foot and to keep in contact with the surface.

12.47 pm Told G. Mason to organise relief men for barricades.

1.00 pm N. Pickering rang from Dip 2 boot end. He reported -

- 1) Got as far as 22-x-cut, the "Taj Mahal" it was reported to be completely destroyed.
- 2) Went to the belt road, the belt structure was "blown all over the place".
- 3) Nil Visibility.
- 4) They are returning, no sign of 2nd team.

1.09 pm Nick contacted Len Graham - both teams returning.

1.12 pm J. Brady and G. Ziebell left surface to take Co readings with high scale tubes.

1.17 pm Barometer reading 1021mb.

1.27 pm Meeting in Len Cumner's office - J. Brady, L. Cumner. Nick left with J. Duncan. Notes taken by L. Cumner, J. Brady.

1.50 pm G. Smith arrived - briefed by L. Cumner, J. Brady.

2.15 pm Discussed with John Brady, monitoring arrangements, as unor only reads up to approximately 3% CH<sub>4</sub>.

2.20 pm D. Kerr back with results from main return. Three G.F.G tubes taken -

4 5 metres inbye l-x-cutt main return.

MAIHAK - same location

1.7% CH<sub>4</sub>

=0.5% CO

2.25 pm Tubes left mine to fly to Rockhampton. J. Brady contacted A.C.I.R.L. to advise time of arrival.

2.26 pm Results from Acky portal - L. Graham, R. Robertson -  
0.82 m/se - velocity  
5 x 2m - opening at North portal  
Ventilation - intaking

2.34 pm Discussed J. Brady, D. Kerr taking CH<sub>4</sub> readings from vacuum pumps with R:ken - also to test for CH<sub>4</sub> in unor roon in cut.

2.47 pm D. Kerr reported back with results from Dip South monitoring point - ran through Maihak -

4% CH<sub>4</sub>

+ 0.5% CO

About 15% O<sub>2</sub>

North Return - Dip

0.8% CH<sub>4</sub>

Approximately 18% O<sub>2</sub>

+ 0.5% CO

3.15 pm Blackwater Rescue arrived. D. Kerr went to brief them.

3.39 pm G. Edwards - Underground Surveyor reported that, surface drilling had started above underground station C346.

4.06 pm D. Kerr brought results of Maihak Readings -

Dip South

O<sub>2</sub> - 16%

CO - +0.5%

CH<sub>4</sub> - 4%

Dip North

O<sub>2</sub> - 18%

CO - +0.5%

CH<sub>4</sub> - 0.9%

Portal 2% CH<sub>4</sub>

5.00 pm J. Brady results from A.C.I.R.L.

5.10 pm Passed results to I. Kraemer. He left for No. 2 Underground to plot Ellicott diagram.

5.36 pm Advised ambulance to return to Moura and be on call - discussed this with J. Brady and W. Allison agreed.

6.20 pm Mass confusion with, where chromatograph is arriving - Thangool?  
Haul Road?  
Shauna Down?  
It is reported that it is heading to Thangool, but it is being attempted to be diverted to Shauna Down?  
D. Black, Police sergeant will organize to have hill airstrip lit up.

6.30 pm Received word that helicopter will land on mine site.  
Contact P. Wetherall -Boilermakers, fitter, T.A.'s.

6.32 pm D. Kerr and D. Wilson left to take samples at fan house.

6.40 pm Discussed with J. Brady method of sampling borehole - decided to contact D. Evans.

6.55 pm Rang D. Evans, asked him to come out to the mine.

7.05 pm D. Kerr and D. Wilson back to office with a G.F.G. tube.

7.10 pm D. Evans arrived. He discussed with J. Brady method and equipment required to obtain samples from the borehole.

7.40 pm Received word from Lee Dingley that D. Dewar had the chromatograph and was travelling to the mine.

7.41 pm D. Dewar arrived - directed him to No. 2 Underground clerks office. I. Kraemer, M. Squires went to assist in the set up.

7.44 pm J. Brady said, that a Policeman will be stationed with the chromatograph to keep people away.

7.43 pm T. Strong gave personnell affects to police.

7.53 pm Received a call from I. Kraemer, saying that the chromatograph is almost set up.

7.59 pm Received call from G. Smith, asking if the chromatograph had arrived, I told him it had.

8.07 pm D. Kerr and R. Sudall left the office to go and obtain further G.F.G. tubes. Decided to take samples on a half hourly basis at this stage.

8.10 pm Rang R. Shapland and informed him of this.

8.17 pm relieved Phil.

8.19 pm John Brady reported sample tube being prepared to go down borehole 200m+. Power pack with vacuum pump to draw sample. Intend using wire taped to tube and this will be lowered down by hand. To be measured at 20 min intervals.

8.22 pm Hughie Fulton continuously asked, if we could convey information to the police.

8.32 pm D. Kerr returned with four tube samples.

8.33 pm Two samples drawn from 4 SE sample tube, other two (2) from 20 feet inbye fan duff.

8.36 pm Barry Banner, Senior Constable inquired about man front gate HANEKE.

8.39 pm R. Sudall brought in spare G.F.G. tubes and reported that 4 samples were taken at 8.21 pm.

8.42 pm R. Sudall taking to Acky entries to clock on ventilation.

8.43 pm G. Mason arranging man to check on progress with drill holes.

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- 8.52 pm T. Faber reported frames made 24ft long, 6ft high, 4ft wide for Airlock.
- 8.53 pm Barometer 1027 millibar.
- 8.54 pm J. Brady & R. McKenna indicated a second Airlock may be required.
- 8.56 pm L. Graham reported ventilation reading of 1.15 m/sec from Acky Portal. This is an increase of 0.29 m/sec from previous reading.
- 8.58 pm P. Reed inquired as to progress with Gas Chromatograph samples still not fed in.
- 9.00 pm D. Black stated that 8 mine vehicles to be positioned at each security check point to give radio link.
- 9.05 pm L. Cumner, G. Smith and R. McKinnon returned to office.
- 9.07 pm R. Sudall & L. Graham leaving to take 2 GFG tube samples from fan and to take air flow reading at M & S intake.
- 9.11 pm T. Strong reported drill hole down 95 metres at 9.10pm. Problem with loss of circulation and still working on it.
- 9.21 pm P. Reed reported that Gas Chromatograph still being warmed up.
- 9.30 pm L. Graham reported no air intaking or exhausting from Supply and Belt road. Two samples taken (73) fan drift, (107) 4 SE point. Air is observed to be clearer.
- 9.32 pm P. Reed and G. Mason leaving to go home.
- 9.40 pm R.L. Sudall reported Chromatograph still not working, suggested take samples at 1 hour intervals, agreed (LFC)

10.11 pm Readings reported from B. Allison:  
CO 3060 ppm N2 76.5%  
CH4 4.6%  
H2 .02% 4SE Point  
O2 18.8% 9.25pm - sample time

10.20 pm John Anderson reported in to take over from  
T. Faber.

10.34 pm L. Cumner reported 4 SE point  
X co-ord - 1.92  
Y co-ord 7.77  
Sample taken 8.20pm

10.37 pm 4SE 3.5% CH4 2900ppm CO - Maihak readings taken  
at 10.30pm  
Fan 1800 ppm Co 2 1/2% CH4  
Readings reported by D. Kerr.  
At the same time 10.30pm 2 tubes: 4SE off UNOR  
tube and FAN off UNOR tube.

10.45 pm Above readings confirmed by R. Sudall.

11.00 pm D. Kerr received message from I. Kraemer to  
disregard last readings. These were both samples  
from 8.20pm and 9.25pm. This is due to a reported  
incorrect reading of H2.

11.06 pm Dallas Landry, Ray Thompson, Paul Johnson,  
reported in to say they were leaving the mine.

11.30 pm P. Ledger reported drill hole at 95 metres.  
Changed bits to roller type.  
Estimate through 4.00am.

4SE 2300 ppm CO )  
3.4% CH4 )  
) Maihak Readings  
FAN 2.4% CH4 )  
1500 ppm CO )

Readings taken 11.35pm.  
Tube samples taken at same time.



11.50 pm	FAN	X	- 1.46	2.00pm
		Y	7.33	
		X	+ 0.87	7.00pm
		Y	6.91	
		X	- 2.85	8.20pm
		Y	8.58	
		X	- 1.88	9.20pm
		Y	7.87	
		X	- 1.88	10.30pm
		Y	7.84	
	4SE	X	- 0.57	8.20pm
		Y	7.34	
		X	- 0.27	9.20pm
		Y	6.92	
		X	- 0.3	10.30pm
		Y	6.96	
		X	- 0.41	11.35pm
		Y	7.26	

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12.35 am R. Sudall and R. McKenna left to take further samples.

12.36 am Drill hole reported to be at 116 metres.

12.50 am 4SE CO 1900 ppm )  
CH4 3.4% ) Maihak Readings  
FAN CO 1200 ppm )  
CH4 2.5% )

1.15 am D. Evans reported on borehole tube line. Advised to place generator 20 metres away from borehole collars. M. Caddell to monitor gas in area around top of borehole.

	<u>Inbye 4SE</u>		<u>Fan</u>	
	CH4	O2	CH4	O2
8.20	4.1	18.9	2.63	17.3
9.20	4.6	18.8	5.3	18.7
10.30	4.6	18.9	2.8	19.4
11.35	4.4	19.1	2.8	19.4
			2.8	19.4
			1.6	19.

1.20 am G. Smith reported drill hole at 126 metres.

1.33 am P. O'Sullivan took readings for 12.45 am sample from FAN.

1.47 am Readings taken at 1.31 am.  
4SE CO 1600 ppm )  
CH4 3.5% ) Maihak Readings  
FAN CO 1000 ppm )  
CH4 2.5%

1.13 am R. Sudall setting up Maihak to monitor fan area. T. Faber or J. Anderson to check out fan in readiness to fix fan.

1.37 am Called Car 43 to arrange blower fans and generator.  
G. Smith and R. McKinnon departed.

3.00 am Ventilation Acky's Portal  
1.46 m/s 5m x 2m  
Ventilation at Man Supply Nil  
CO at fan work area 30 to 900 CO.

Samples taken at 2.30am  
Tube No. 1 = 4 Sth E Spot 1300 CO 3.5% CH4  
Tube No. 92 = Fan Spot 900 CO 2.5% CH4

3.05 am Hole at 148 metres.  
D. Evans modifying catenary weight.

3.15 am Blower fans and generator in workshop. A. Graham,  
R. Sudall and T. Faber going down to check fan and  
take readings.

3.28 am D. Evans, I. Pearce & M. Caddell left for drill  
hole.

3.30 am Readings:  
4SE 3.7% CH4  
1100 ppm CO  
FAN 2.5% CH4  
700 ppm CO

3.45 am Drill hole 5 metres from destination.

3.50 am W. Greaves returned to mine.

4.05 am Advised by drillers that they had holed through.  
M. Caffery gone to inspect.

4.17 am M. Caffery advised that drill hole exhausted gas -  
pressure has dropped off but is still positive  
out.

4.19 am M. Caffery asked for other men to take GFG samples  
from 4 South and Fan. L. Graham and R. Sudall  
will work at Drill Site.

4.20 am Sample results phoned through.

4.25 am K. Ross back in office

4.26 am I. Kraemer and P. O'Sullivan to cut to take tube  
samples.

4.30 am B. Greaves check out monitoring systems.

4.35 am Monitor samples from  
3 South East 2.05% CH4 7 ppm CO;  
3 South West 2.8% CH4 6.3 ppm CO.

4.45 am Report from R. Sudall. Trouble getting sample  
tube down inside drill stem. Still positive  
pressure up borehole - instructed him to take GFG  
sample from top of drill stem.

4.46 am I. Kraemer and P. O'Sullivan returned with pit GFG  
samples.

4.50 am Len Cumner and Mike Caffery on site.  
M. Caffery to drill site with 21/31.

4.53 am W. Allison, M. Best and R. Barker on site.  
Fill all in on state of mine.

5.00 am M. Caffery called from Drill Site - still having  
trouble getting sample pipe down drill stem -  
decided to pull drill stem and try to get sample  
tube down the open hole. Also reported on spot  
21/31 reading of 500 ppm CO. L. Graham on way to  
laboratory with GFG tubes from top of drill stem.

5.07 am M. Caffery returned to office - he reported that  
the temperature of the gas exhausting out the  
drill stems is only slightly warm and that a  
maximum of 1.8% CH4 was measured from the drill  
stems.

5.08 am G. Smith returned to office.

5.10 am R. McKenna returned to office.

5.16 am D. Kerr returned to office.

5.23 am I. Kraemer advised first results from bore hole.  
Tube No. 107 1.2% CH4, 500 H2, 880 CO,  
20.2% O2, 77-7 N2 X-3.29 Y 9-11

5.38 am Monitor results from 3 South.  
3 South East 2.01 CH4 4 ppm CO  
3 South East West 2.8 CH4 5 ppm CO

5.40 am P. Kennedy sample results tube numbers 1, 92, 50.

5.44 am I. Kraemer returned with GFG samples from Fan and  
4 South

5.50 am I. Kraemer advised that sample No. 92 was taken from the wrong pump - disregard this sample.

5.55 am Call from Kerry - No comment to Media - No workmen required, advise callers that they will be contacted if required.

6.05 am P. Reed arrived on site.

6.10 am Sample tube almost in place.

6.20 am Advised D. Kerr and R. McKenna to get 2 Rescue Teams to the mine.

6.24 am I. Kraemer results of tube Nos. 92 & 91.

6.25 am P. O'Sullivan to go and get D. Wilson.

6.30 am R. Sudall advised that two GFG tubes from Borehole to Lab.  
B. Greaves monitor results:

Main Dip	2.35% CH4	CO off scale
Dip North	0.9% CH4	CO off scale
4 South East	2.9% CH4	CO off scale
Dip South	1.38% CH4	CO off scale
3 South East	2.00% CH4	4.5 ppm CO
3 South West	2.8% CH4	5 ppm CO

6.55 am M. Caffery and D. Airtion left to take Air Velocity reading from Acky Portal.

7.00 am D. Kirby from Oaky Creek is due to arrive by helicopter at 8.00am. D. Dewar will organize where he has to land.

7.04 am I. Kraemer advised that the chromatograph results from the borehole are being run now, and he is now going home, he has been relieved by C. Shapland. Two chemists also relieved.

7.05 am R. McKinnon and G. Smith arrived. Went to Don Fowler's office with L. Cumner, D. Wilson and District Union Inspectors to discuss format of press release.

7.11 am G. Edwards advised that he will be going home soon. He will be available if required. He has

- 7.15 am Chromatograph results rang through by P. Kennedy. Results obtained from 4 South and two from bottom of the borehole. One tube from the Fan still being run.
- 7.25 am Chromatograph results from Fan drift rang through by P. Kennedy.
- Meeting in L. Cumner's office.
- M. Caffery has advised he has organized relief crews for borehole sampling.
- 8.00 am J. Blyton, N. Pickering, R. Robinson, S. Byron, K. Guest - All mines members. Team briefing for exploration.
- 8.10 am D. Evans went home.
- 8.12 am Rang Survey Department asking them to obtain more plans of No. 4 Underground Mine.
- 8.28 am Received Gas Results from P. Kennedy from 4 South and Fan drift.  
J. Brady and P. O'Sullivan went to Moura town.
- 8.29 am Told M. Squires to obtain CO and CH<sub>4</sub> readings from borehole using Draeger 21/31 and Methanometer. Rescue Team told to wait on advice from D. Wilson.
- 8.30 am D. Wilson advised that ACIRL will be on standby during the night if required.
- 8.35 am M. Best advised the barometer reading is 1028mb and rising.
- 9.00 am G. Mason went to investigate borehole sampling.
- 9.12 am G. Mason reported back that the tube bundle had been withdrawn from the hole at an earlier stage. It was now back in position and the vacuum pump is running.
- 9.20 am M. Squires returned with borehole results.  
GFG sample taken to chromatograph.  
21/31 Results approximately 500 ppm CO.  
1.2% - 1.4% CH<sub>4</sub> - Told D. Kerr to proceed with

9.21 am J. Anderson, B. Gunton, L. Eckart, leaving mine site.

9.30 am Received a call from J. Duncan - he said he was now home from hospital and was O.K.

9.33 am D. Wilson advised police that Alan McMaster (Electrical Inspector of Coal Mines) would be arriving today.

Rescue Team 1 entered mine.

9.40 am Received call from B. Warrior in Blackwater advising of rescue truck leaving Blackwater with extra clothes for rescue members.

Received chromatograph results from P. Kennedy.

9.58 am Received a call from G. Smith asking if Rescue Team had entered the mine. I told him the first team entered at 9.33am.

10.05 am M. Cook (Boilermaker) left the mine site.

10.07 am L. Cumner reported that Team 1 was at 11 X-Cut - stoppings are intact up to that point.

10.24 am M. Squires left to take tube samples in the cut.

10.35 am Received a call from G. Smith advising that Andrew Vickers and Barry Swan had arrived in his office.

10.55 am L. Cumner advised, only damage reported by Team 1 was to the Supply Road overcast at 12 X-Cut. The team is now in the 3 South area.

10.58 am Rang Graham Simpson (Surveyor) asking for 1250 scale plans of the Dip Section of No. 4 Mine.

11.04 am L. Cumner advised that Team 1 was on the way out of the mine, with no further damage reported.

11.10 am L. Cumner advised that the Team was out of the mine and were on the way to this office.

11.15 am D. Wilson arrived back from G. Smith's office.

11.20 am Received call from P. Kennedy with further gas results

11.21 am Meeting in L. Cumner's office to receive report from J. Blyton, Captain of Team 1.

Verbal report received from J. Blyton - Full report to be submitted.

- Damage reported to 4 South Overcasts
- Gas tubes taken
- Ventilation stoppings appear O.K.

Plans established for Mines Rescue Team 2 and to repair the fan.

Decision made to send Team 2 into the mine.

12.00 md Rang J. Anderson and T. Faber and asked them to come to the mine to start work on the fan. T. Faber reported he had received a severe welding flash; he will pick up J. Anderson and come to the mine.

12.10 pm Received gas results from P. Kennedy, one tube taken by Team 1. Discussed results with D. Wilson as the results were different to the "ON THE SPOT" readings taken by Team 1.

12.27 pm Received gas results from P. Kennedy from Tube No. 100 taken by Team 1.

12.43 pm J. Anderson and T. Faber arrived on site.

1.14 pm L. Cumner reported that Team 2 reported they had run out of radio antenna wire at 21 X-Cut at 1.09pm. L. Cumner had instructed them to return to the surface.

1.17 pm J. Anderson reported that airblowers are available for use in the cut as required. He discussed this with D. Wilson, A. Hepburn and A. McMaster.

1.24 pm Received gas results from P. Kennedy. Tube Nos. 8 and 106.

1.30 pm J. Anderson, T. Faber, Clive Russell, G. Seeney, G. Roundfell, P. Meredith, K. Watson, C. Lower, P. Rose went into the cut to repair the fan.

1.42 pm A. Hepburn and A. McMaster went into the cut to inspect the fan.



1.55 pm D. Fowler arrived on site.

2.01 pm Team 2 arrived in L. Cumner's office.

Verbal report from N. Pickering - Captain Team 2.  
Written report to be submitted.

Discussed findings and decided upon plan of action  
for Team 3.

Team 3 will investigate below 21 X-Cut in the  
South return to determine the source of smoke.

2.30 pm Received gas results from M. Squires. 4 South and  
Fan, he advised that no more fan results as the  
tube has been cut, due to repairs to the fan.

J. Anderson and T. Faber reported that repairs to  
the fan are complete and all people involved are  
on the surface.

2.55 pm Received gas results from P. Kennedy - results  
from 4 South sample line indicated in the  
explosive range. I notified D. Wilson  
immediately, who then contacted L. Cumner, who  
then instructed Team 3 to withdraw.

3.01 pm Barometer Reading 1025mb - reported by Matt Best.

3.04 pm Team 3 out of the mine.

3.05 pm Meeting held to discuss findings - another tube  
sample will be taken at the 4 South sample tube to  
determine if the gas mixture is still in the  
explosive range.

3.22 pm L. Graham and D. Fowler went to take an air  
velocity reading at the Acky Portal.

3.30 pm D. Kerr advised that the Dip South tube sample  
reading was 1.7% methane.

3.40 pm D. Fowler and L. Graham returned with results from  
the Acky Portal.

Dimensions 5 X 2 1/2 metres

Velocity Readings

(1) 1.3 m/sec

(2) 1.49 m/sec

3.43 pm I. Kraemer arrived.

3.48 pm J. Anderson, P. Kennedy, P. Meredith, R. Platz, and C. Seeney left the mine.

3.51 pm The proposal to continue with the exploration despite the high methane levels above the 4 South seals was not agreed to by the Manager Len Cumner. The operation will stop until the methane levels above the 4 South Seals are below the explosive range. Further samples will be taken from the sample tube.

4.00 pm L. Cumner advised he is leaving the mine site. Gas sampling is to continue but no further rescue operations will be attempted until tomorrow morning.

4.40 pm Monitoring arrangements are:  
I. Kraemer, D. Airton to continue getting samples until approximately midnight. They will be relieved by L. Graham. Samples will be taken on an hourly basis.

4.57 pm Received gas results from M. Caffery. Tube No. 62 4 South.

5.12 pm Received gas results from M. Caffery. Tube No. 34 Fan tube.

5.15 pm B. Swan, A. Vickers discussions.  
B. Swan has requested the NSW Minister for Industrial Resources.

5.37 pm B. Swan and A. Vickers left site.

5.40 pm Discussed installation of Sifor monitor into the discharge side of monitor pump.

5.50 pm Sample tube No. 4 results - not explosive.

5.55 pm Owen Butler, South Mines Rescue. What is required. No equipment needed at this stage but Chris Ellicott could be useful.

6.00 pm Discussions with Chris Ellicott on sample results and possible travel arrangements.

6.48 pm Borehole down 3 metres 21 degree C temperature at 6.30pm. Have now lowered thermometer down 10 metres.

6.52 pm Call from C. Glazbrook and D. Kerr. Will advise if required.

6.55 pm G. Bailey, Deputy Chief Inspector NSW has a mobile lab on standby if needed.

7.00 pm Call for Rick Gazzard re Statewide Charter.

7.03 pm Call from Paul McKenzie Wood, re assistance.

7.20 pm Sample results tube 100 & 5.

7.35 pm Call from G. Bailey, Deputy Chief Inspector NSW. Spoke to R. McKenna.

7.40 pm Temperature down 30 ft in borehole 21 degree C.

I. Kraemer, instructed him to take 4 South samples every half hour. Check borehole with 21/31 every 1 hour to determine CH<sub>4</sub> also. Sample from fan every 1 hour.

7.42 pm R. McKenna call to D. Kerr re progress.

7.55 pm D. Fowler and G. Smith to Moura House.

7.56 pm Sample results tube Nos. 57, 100 & 34.

8.10 pm Sample results tube No. 4, 4 South.

8.25 pm Check sample from 4 South using Sifor & 502. Readings were 1.25 & 2.21 respectively.

8.45 pm Helicopter departed for Rockhampton to pick up C. Ellicott. Helicopter will be available Friday morning.

8.46 pm L. Cumner and D. Fowler on site for briefing. Sent for M. Best and W. Allison.

8.55 pm I. Kraemer - Results spot readings on borehole 0.8% CH<sub>4</sub> (502 & Sifor) 100 ppm, CO 21/31 & Sifor, 0.15% CO<sub>2</sub> 21/31. Temperature 21 degree C. Tube 1.8% CH<sub>4</sub>

9.01 pm D. Kerr arrived.

9.12 pm D. Kerr to home.

9.15 pm M. Best & W. Allison have been contacted - will be here in 5 minutes.

9.17 pm M. Caffery sample results tube 62.

9.18 pm 4 South, 60 ppm CO 21/31 180 ppm Sifor  
CH4 2.4% 502 3% Sifor CO2 0.16%

9.20 pm M. Best & W. Allison arrived for briefing.

9.30 pm M. Caffery sample results from 4 South. Asked to recheck.

9.45 pm Asked M. Caffery to span gas the Sifor & 502 Instruments

9.55 pm Borehole temperature 21 degree C.  
CH4 1% Sifor 0.6% 502, CO 30 ppm Sifor,  
50 ppm 21/31 0.1% CO2.

9.56 pm Briefing in Control Office.  
Present: W. Allison, M. Best, L. Cumner,  
D. Fowler, R. McKenna, J. Brady, C. Glazbrook,  
D. Bromley, A. Hazeldeam, I. Kraemer,  
P. O'Sullivan, D. Black, D. Gordon & P. Reed.

10.10 pm 4 South CH4 1.2% 502 1.2% Sifor CO 80 ppm Sifor  
110 pm 21/31 CO 0.2% Spot tests.

10.20 pm Call to R. McKenna. Briefed on plans.

10.10 pm 4 South - CH4 4%.

10.25 pm A. Vickers & B. Swan on site.

10.32 pm Team captained by C. Glazbrook went underground.

10.45 pm M. Caffery - Sample results tubes 75 & 62.

10.45 pm Advised team is proceeding inbye of 8 C/T.

10.57 pm Tube sample only to be taken from 4 South.

10.59 pm Call for W. Allison.

11.00 pm      Borehole at 10.40pm  
                 CO 100 Sifor   CO2 .08   Ch4 1.0% Sifor  
                 Temperature 20 degree C.  
                 CO 140 21/31   1.1% 502

11.10 pm      M. Caffery reported a 5% peak on continuous /  
                 Sifor.

11.14 pm      CH4 dropped to 6% and steady.

11.25 pm      G. Smith on site with L. Graham, S. Byron and  
                 P. Ein.

11.26 pm      Helicopter landed with C. Ellicott.

11.40 pm      Borehole Sample 11.20pm.  
                 CO 120 Sifor CO 0.2% CH4 0.8 502  
                 Temperature 21 degree C.  
                 CO 120 21/31 0.9 Sifor

11.45 pm      Report from team - on the way out.

11.55 pm      Now at 20 C/T.

Friday, 18th July 1986

12.00 mn Methane increasing at the fan, now 4.5%. Advised men to leave the cut.

12.05 am Team to surface.

12.10 am Debriefing.

12.45 am Debriefing completed.

12.46 am 4.55% CH<sub>4</sub> at the fan.

12.55 am Discussion on action to be taken, ie fan start up.

1.00 am A. McMaster on site.

1.15 am Sample results tube 63.

1.20 am Mine Rescue Teams, etc left site.

1.30 am L. Cumner, P. Reed - off site.

1.35 am Report from Max Robertson & Ted Long. Gave a report on what was needed to start mine fan remotely. Told to go ahead.

2.10 am Twin core cable hung over high wall. Starter switch for diesel fan taken off diesel and twin core cable coupled to exposed wires.

2.40 am Ross McKinnon called - advised him that fan would not start, possible voltage drop was too high.

3.15 am 4.4% CH<sub>4</sub> at 4 South.  
R. McKinnon arrived on site.

3.45 am A. Vickers and B. Swan off site.

3.55 am Instructed Max Robertson to put the switch back in the fan starter so that the fan can be started manually. All attempts to start the fan remotely have failed.

4.15 am Battery terminals for fan starter failed.  
Electricians changing same.

4.30 am Steady rain falling.

4.40 am Found that the batteries for the fan starter were flat. Electricians arranging for replacements.

4.53 am Results of sample tube 75.

4.55 am Main fan operating on standby diesel - pulling 0.3" WG.

5.00 am D. Kerr arrived on site.

5.08 am 4 South Sifor dropped 4.1% to 3.1% CH<sub>4</sub>. Borehole sample taken.

5.17 am Dip North return - Gas content lowering.

5.20 am 4 South Sifor still dropping 1.8% CH<sub>4</sub>.

5.30 am Acky section intake 1.0, 1.0 & 0.6 M/S. 1.6  
36.

5.37 am 4 North Sifor 1.5% CH<sub>4</sub>.

5.55 am Borehole Still exhausting out 5% + CH<sub>4</sub>, 200 ppm CO, 0.3% CO<sub>2</sub>. Tube sample taken also No. 62.

6.00 am Ted Long and D. Kerr down cut to check fan and velocity at man and supply portal.

6.15 am 1.3% CH<sub>4</sub> for 4 South.

6.15 am Fan OK. Velocity 2.2M/S Main & Supply Armco  
0.6M/S Conveyor Armco

6.24 am Sifor results 4 South 0.92% CH<sub>4</sub>.

6.26 am Unor papers changed at 6.15 am.

6.30 am Call to K. Walf - progress report.

6.40 am Call from George Green, Chairman Southern Mines Rescue - Do we require any assistance - Not at this stage.

6.45 am J. Anderson, R. Platz, J. Rounsfell,  
P. Johnson, P. Meredith, P. Anderson,  
C. Seaney, C. Lower, B. Gunton arrived at 6.30am  
A. Pocock arrived 6.30am.

6.47 am 4 South Sifor still 0.92.

6.50 am Borehole 3.4% CH<sub>4</sub>  
1.3% CH<sub>4</sub> pump out  
100 ppm CO 0.12 ppm CO<sub>2</sub>  
Tube 106

7.08 am 4 South Sifor 1.2%. Sample Result No. 106.

7.15 am M. Best & W. Allison on site. Briefed on progress.

7.20 am Decided to send team in to extend Unor Line.

7.30 am Team Briefing.

1. Proceed to 6 C/T, check ventilation from 3 South, determine quantity and quality at 3 C/T.
2. Proceed down intakes. Satisfy yourself that all is clear down to 15 C/T.
3. Extend tube bundle from Dip South Vent sample down the north return to goaf edge.

Team comprises:

R. Sudall (Captain), D. Airtton (Vice-Captain)  
S. Roberts, C. Shapland, R. Ein.

7.40 am Report from J. Anderson. Fan motor all OK.

7.42 am G. Smith on site.

7.55 am L. Cumner & D. Wilson on site.

8.05 am P. Reed on site.

8.17 am Received borehole gas analysis tube No. 90 from M. Squires.

8.25 am R. McKinnon & R. Harden on site.

8.45 am Arrangements for manning the store are:

- (i) To be manned every shift up until end of day shift Saturday.



8.50 am J. Anderson, R. Platz, P. Meredith went to check the fan.

8.51 am D. Fowler off site.

8.53 am R. McKenna rang:  
(i) Southern Mines Rescue Station  
(ii) Blackwater  
(iii) Keith Ross  
(iv) Don Ryan - Dysart  
(v) Dave Bailey - Booval  
(vi) Owen Buller - Southern Mines Rescue)

8.55 am L. Cumner advised the rescue team have entered the mine.

9.00 am J. Anderson reported on inspection of vent fan. Vent fan okay mechanically.

9.07 am L. Cumner advised that rescue team withdrawing due to radio problems.

9.10 am R. McKenna left site.

9.17 am G. Mason arrived on site.

9.23 am L. Cumner advised that the rescue team reported the gas readings for the 3 South area are:  
3 South Supply Road CH4 - 0.2%  
3 South Return CH4 - 1.45%

9.30 am Received gas analysis from the borehole tube 90. E. Long left site.

9.32 am L. Cumner advised the rescue team reported that the area is clear to 12 X-Cut, and they are moving the vehicle to this point.

10.04 am J. Anderson and P. Meredith went down to inspect the fan.

10.05 am Received a call from P. Ledger. He advised that the contract drillers are due to start a drill hole above the Main Dip at No. 4 Underground. He asked if they should start. L. Cumner said NO.

10.15 am L. Cumner advised that the rescue team had reported that the sample line has been run to 19

10.17 am J. Anderson reported that the fan is OK. Roster for the week-end:  
Night Shift - J. Anderson  
Afternoon Shift - E. Matthews  
Day Shift - E. Long, T. Faber

10.18 am Received gas analysis from the borehole tube No. 62.

10.35 am G. Smith & R. Harden left site.

10.50 am Team leaving 12 C/T by vehicle for surface.

10.50 am Debriefing team.

11.07 am Received gas analysis from the borehole tube No. 62.

11.09 am Plan for next stage:

- (i) Rescue team extend sample line to full extent of tube. Determine quantity and quality of air at sample point.
- (ii) Two Deputies to proceed via Acky Portal, inspect 3 South Section, carry out normal inspection. Deputies - L. Graham and P. Rose.
- (iii) J. Brady and Bill Allison to 19 X-Cut on Main Dip - to estimate debris.

11.12 am R. McKinnon left site.

11.30 am Mine Deputies L. Graham and P. Rose entering No. 4 Mine through A Section Hi-Wall entry to carry out normal deputy inspection of Acky Section and 3 South Section.

J. Brady, Mines Inspector and W. Allison QCEU Mines Inspector, going down mine to inspect to 15 C/T.

11.37 am Received gas analysis from Dip South Return.

11.24 am Received gas analysis from M. Squires. Borehole sample tube No. 62.

11.38 am G. Mason said he had received a report from L. Graham and P. Rose by telephone. They said they were at the No. 2 Loop Take-Up on 3 South No. 1 belt. The general body of the intake at this point 0.1% CH<sub>4</sub>.

They have taken a gas reading in the eastern return 2.2% CH<sub>4</sub>, Nil CO.

They are now proceeding to the west return to sample for gas, then proceed via the Supply Road to the 3 South Section boot end.

They also reported that could hear water running in the pipeline. They have re-constructed a stopping in the Ex Acky North Return and repaired stopping in Ex Acky South Return.

1.06 pm G. Mason reported on 3 South inspection:

L. Graham and P. Rose telephoned from 3 South Section Boot End:

- General Body Readings : 0.2% CH<sub>4</sub>, Nil CO.
- Water turned off - was rose running onto conveyor belt.
- No damage to stoppings - some doors were found opened, these have been closed.
- Negligible evidence of dust having been raised into the atmosphere.
- Proceeding now to face areas and will contact again from section boot-end.

1.28 pm G. Mason reported on 3 South inspection:

L. Graham and P. Rose telephoned from 3 South Section Boot End:

- Face area has been inspected.
- Gas readings CH<sub>4</sub> 0.7% in general body over miner. CH<sub>4</sub> 1.4% behind brattice at face.
- Returning to surface via Main Dip Portal.

1.33 pm D. Fowler reported that the Mines Rescue Team is coming out of the mine.  
D. Kerr will be going down to continue building stoppings.

1.37 pm N. Pickering, S. Byron, G. Young, P. Ein, C. Bayles, K. King, P. Bayles, S. Roberts, A. Morieson, B. Clancy, R. Ein, C. Shapland went down mine to continue building stoppings.

1.39 pm J. Blyton, Captain of Rescue Team arrived to give his report.

D. Wilson, G. Hardy, A. McMaster and S. Bell going down to inspect the Mine Portals.

1.41 pm Received gas results from M. Squires, Tube No. 62 from the borehole.

1.50 pm L. Graham and P. Rose back on the surface - reported 3 south Section is now OK.

2.04 pm D. Day rang to say that the underground store will be open until 2.00pm Saturday. It can be kept open further if required.

2.10 pm Bill Allison rang from Dip 3 Drivehead, reported smoke on the south return. All men being withdrawn.

S. Byron and Nick Pickering walking the Dip South Return, checking the sampling line. All other men returning by vehicle.

2.43 pm J. Brady and W. Allison on surface. All men on surface except S. Byron and N. Pickering. They are still walking out of the South Return. R. Robertson driving out in MPV.

J. Brady, W. Allison and D. Kerr reported that there is definately smoke and a very strong smell at 19 X-Cut in the South Return, 90 ppm CO recorded. Decision made that a reliable sample line must be established before any further work can be performed underground, so as to determine if the atmosphere is in fact changing.

Dip South sample line will be checked by using Maihak.

2.47 pm S. Bryon and N. Pickering arrived in L. Cumner's office. Reported no obvious signs of leaks in the Dip South sample line.

3.15 pm Received gas analysis from M. Squires from Borehole tube No. 62.

3.33 pm D. Fowler stated that the priority is to establish a reliable sample point at 25 X-Cut.

Discussion held whether to try and repair existing line, or to drill a new borehole and pump Carbon Dioxide or Nitrogen down this borehole to extinguish the apparent source of the smoke.

The location of the new borehole was discussed. A borehole has been started at 25 X-Cut South Return.

Decision made by Len Cumner to discuss the possibility of using inert gas with Ross McKinnon and Chris Ellicott.

4.04 pm G.E. Hardie and J. Strang (Southern Mines Rescue Station) ie, investigation.

4.05 pm D. Kerr advised to send the rescue team to accommodation.

4.07 pm Meeting with L. Cumner, R. McKinnon and G. Smith, ie. investigation.

5.06 pm Phil Reed left mine.

5.15 pm Samples from borehole received.

5.36 pm Message received from M. Caffery - 100,000 cubic metres gas required to fill with to Dip 2 South Boot-End.

Incline to portals closed off.

Saturday, 19th July 1986

8.00 am R. McKenna, G. Hardie, D. Wilson, R. McKinnon,  
G. Smith, L. Cumner, D. Fowler, P. Reed,  
I. Kraemer, G. Mason, M. Caffery, D. Kerr,  
R. Gazzard, C. Glasbrook, B. Wharrier,  
W. Allison, M. Best.

Discussion on the 4 options worked out during the night by Brian and Ron with assistance from Ian, Chris Ellicott and O.C. Staff.

Option 1: Flood with N2. Not sufficient to do the work.

Option 2: N2 in Goaf only. Only just enough N2 with no flexibility.

Option 3: Preferred. Water used to flood inbye area without affecting area to be investigated and rest of affected area with N2.

Option 4: Flood with water. Final option if all else fails.

Agreed on Option 3. Ross remarked that cost must not be a consideration. All material required to be got on site as soon as possible.

9.40 am D. Wilson, left site to Rockhampton. R. McKenna and B. Wharrier left the site.

9.58 am Received call from Peter Warren - C.I.G. advising he will be in Rockhampton 2.25pm Sunday 20th. He enquired about the route to Moura. P. Reed explained the route to him.

10.29 am D. Black leaving site, asked to be notified if any changes occur.

11.45 am D. Fowler and P. Reed going home will return for press briefing at 3.00pm.

Roster set up for above:

D. Fowler working	3.00pm	-	1.00am
P. Reed working	12.00mn	-	9.00am
L. Cumner working	8.00am	-	

1.00pm D. Kerr return home - will return for the press view at 3.00pm.

2.10pm Bob Thomas (C.I.G. Regional Director) rang from Gladstone. Going to Rockhampton to meet a plane at 3.05pm. 2 or 3 C.I.G. people coming from Brisbane. Will drive to Moura and arrive.

Four (4) tankers coming up - first tanker left at 11.00am - will arrive at between 7.00pm - 8.00pm.

Need access to holes. Have 40 to 50 feet hoses.

2.15 pm R. Sudall rang for G. Mason - when G. Mason can be found will ring.

2.30 pm D. Fowler arrived.

2.35 pm P. Neilsen rang - Re seals No. 2 Underground. Shortage of Labour. Message going over 2 radio stations - All Underground workers from No. 2 and No. 4 Mine report to L. Henderson or A. Whyte (NOT A PANIC SITUATION) too much load on current workforce at No. 2 Mine.

2.55 pm <sup>R</sup>B. Zann (Communications Centre) rang. Message for R. Gazzard.  
No. 4 Drill Hole at 150 metres, will be through within 1 hour.

3.20 pm G. Mason arrived - he had rang R. Sudall as per request at 1.15pm.

3.28 pm During discussion of drilling programme. Media allowed to listen to discussions from outside office windows and take appropriate pictures.

3.45 pm Communications Centre rang - Message for R. Gazzard.  
Men for pumps okay - will work 12 hour shifts until otherwise notified.

3.46 pm L. Cumner off shift.

3.46 pm Received word that No. 4 hole had drilled through to a cavity at 159 metres depth. Approximately 6 - 7 metres above the seam. The cavity is 1.3 metres high.

4.15 pm M. Caffery returned with results of tests taken at top of boreholes:  
# 2 - 100 ppm CO  
# 4 - 40 ppm CO + 5% CH4

4.45 pm Message for R. Barker to ring P. Wetherall.

5.00 pm Rang Kerry to arrange a flight for J. Brady.  
Arranged with D. Dewar for lights and transport from Shauna Downs.

5.30 pm update on Drilling:  
# 3 - Re-drilling at 85 metres  
# 5 - Spudding

5.40 pm Call from store re layflat delivery:  
6.00pm - 6 rolls  
Midnight - 5 rolls  
Midnight - 15 from Emerald  
3.00am - Balance from Riverside

5.45 pm 2 rolls heli-plex hose.

5.50 pm Bob Thomas C.I.G. plus 2 other C.I.G. men arrived.  
Went to drill site with R. Gazzard.

5.55 pm D. Evans handing over to M. Robertson. Going over to drill site with multi-meter.

6.00 pm D. Wilson rang:  
Request transport from Rockhampton and back for Margaret and Pat O'Sullivan to attend Memorial Service.  
Discussed position of drilling.

6.20 pm ELGAS - Driver Bruce Phelan, driver informed.  
E.T.A. 8.00am. Dick Hart will advise his E.T.A.

6.30 pm Representative readings to 6.20:  
Borehole 1 O2 20.6% CO 40 ppm 0.3% CH4  
Borehole 2 O2 20.4% CO 90 ppm 1.1% CH4

6.50 pm Sample from Borehole 2 20.4% O2, 1.1% CH4  
90 ppm CO.

6.50 pm T. Dittman went to collect 4 C.P.P. two-way radios for use between "lab" and No. 4 hole.

7.25 pm B. McKenna rang, informed him of Underground



8.00 pm 2 pumps read - 2 hoses run out - 2 hoses being run out - hose collar under construction. A 4" hose collar is ready.

8.10 pm Blackwater drill in Moura, being led out to mine by M. Deayton.

8.25 pm R. Gazzard left for home.  
M. Caffery left for home.

8.27 pm Reported that Blackwater drill was on site.

9.50 pm Call from Dick Hart (Cootes Transport of Brisbane). He and David Maclean are flying into Shauna Downs. E.T.A. 7.45. Arrangements to be made to transport them to mine to meet tanker. E.T.A. 8.00 am.

10.00 pm R. McKenna rang requesting meeting with C. Ellicott and Chemists - R. McKenna in about 15 minutes.

10.30 pm Meeting with R. McKinnon, G. Smith, G. Hardy, C. Hellicott, J. Brady, I. Kraemer, P. Franklin, S. Bell, D. Fowler.

G. Hardy asked "In the light of information obtained from borehole samples is it wise to start introducing water or nitrogen into the goaf?"

He believed a possible methane mixture could be displaced over a possible heat source.

Peter and Stuart are convinced that CO is being generated.

It was decided to take samples from No. 4 borehole and No. 7 boehole and have a further meeting before introducing either water or nitrogen.

Chris recommended that the safest way to introduce nitrogen is to use #1 borehole first and when it was believed that nitrogen was flowing out of the section, induce nitrogen through #4 borehole.

11.30 pm Hole 7 through.

Sunday, 20th July 1986

12.20 am Samples for #1 and #2 boreholes show no significant change.

12.30 am No samples from #4 boreholes as hole is blacked at 110 metres. Drill rig being moved from #7 to rebore #4.

12.55 am G. Smith, R. McKenna, D. Fowler, R. McKinnon, J. Brady, G. Hardy, C. Ellicott, B. Allison - left site.

1.20 am Discussion held between P. Reed, P. Ledger, T. French, I. Kraemer, G. Hull, M. Pitman, on location of borehole No. 9, and sampling from hole No. 9, and sampling from hole #7.

3.10 am Advised by surveyors that site for borehole #9 is ready for drilling.

3.25 am Advised by Toby Ditman that two Nitrogen trucks have arrived. This gives a total of four on site.

3.26 am Received update from P. Ledger on status of drill holes.

4.28 am D. Kerr arrived on site.

4.30 am Received a report from I. Kraemer:

(i) 4 Nitrogen trucks in wheat paddock  
3 X 18 tonne 1 X 10 tonne

(ii) At checkpoint 4 - There are 4 semi-trailers of gasification equipment.

4.40 am B. Greaves arrived on site.

5.35 am Update from P. Ledger on drilling.

6.33 am D. Kerr reported "on the spot readings" from borehole No. 5  
Readings: 50 ppm CO

7.32 am L. Cumner arrived on site.

7.33 am Gas tanker arrived on site.

7.36 am G. Smith arrived on site.  
R. McKinnon on site.

7.45 am J. Brady, G. Hardy, M. Best, W. Allison on site.

8.15 am Dick Hart - Manager Cootes Transport and David  
Macklin - Elgas arrived on site.

8.20 am Control Meeting.

It was agreed:

1. N2 will be introduced ASAP through holes 1  
and 5.
2. Water will be introduced ASAP through holes 3  
and 6.
3. Continue monitoring holes 2 & 5.
4. Drill hole 9 location shown on master plan  
for future monitoring.

This plan put into action.

9.30 am Continue power to Sifor monitors at the boreholes  
- electricians deployed to repair generator.

9.40 am Call to Blackwater rescue, request C. Glazbrook's  
and D. Gordon's teams to proceed to Moura with  
their equipment. Arrival expected later this  
afternoon.

9.50 am J. Anderson asked to construct transport module  
for bodies.

10.05 am Report from R. McKenna.

The following people are in charge:

1. N2 Injection	- John Shoebridge
2. Monitoring	- C. Ellicott
3. Water Injection	- R. Gazzard
4. Underground Recovery	- R. McKenna

10.20 am R. McKenna to call C. Glazbrook.

10.30 am Geologist required at drill site. Message passed on.

Report from R. McKenna - All section heads are aware of their responsibilities.

10.35 am R. McKenna call to C. Glazbrook re equipment. Extra sampling hose at Thiess.

10.36 am G. Walsh for L. Cumner.

10.40 am R. McKennon and G. Smith on site.

Power has been restored to drill site generators.

10.42 am R. Gazzard - would appear that No. 3 drill hole has missed target.

10.52 am Helicopter arrived on site with Sir James Balderson.

10.55 am N2 ready for No. 1.  
Monitoring 2, 4, 9, 5.  
No. 6 down 60 metres - problem  
No. 3 - in coal.

10.58 am Advised N2 operations to go when ready and to advise control when injection has commenced.

11.10 am Injection of N2 commenced.

11.15 am Hole No. 3 passed target depth by 6 metres, lost 95% of water return. Will try high pressure water flush.

11.29 am Temporary halt with N2 injection.

11.39 am N2 injection recommenced.

11.45 am N2 injection rate 7 1/2 tonnes/hour.

11.55 am Borehole 3 advised to high pressure flush the hole.

12.14 pm N2 injection starting hole No. 5. Monitoring holes 2 & 4 all well.

12.30 pm Geologist - No. 1 N2 injection still at 7 1/2 tonnes/hour. Preparing to put down No. 5; 2 & N4 samples. Trying to pump water under high pressure to clear debris. Hole 3 had about 2 metres of cave above expected roof line.

12.50 pm D. Evans required at drill site.

12.51 pm At 12.45 sample results holes 2 & 4.

1.00 pm L. Cumner returned to site.

1.07 pm 1.00pm sample results from 2 & 4.

1.12 pm Peter Warren C.I.G. to drill site.

1.25 pm Ross McKinnon called - advised that all is progressing satisfactorily.

1.45 pm C. Glazbrook and D. Gordon arrived on site. Total 14 team members from Blackwater.

2.00 pm Advised that N2 injection commenced on Hole No. 5. Water injection will commence in Hole No. 3 shortly.

2.30 pm Report from R. Gazzard, Hole No. 3 appears OK with connect to supply and try to introduce water.

Report from C. Ellicott. Hole No. 5 was not producing good sample results, it was therefore decided to pull out sample line which was found to be kincked. This hole was then set up for N2 injection.

2.35 pm Let Helicopter pilot know that estimated time of departure will be 3.00 to 3.10 pm.

D. Fowler arrived on site - went to inspect drill site with Len Cumner.

2.47 pm Advised that 1/2" sample tube had arrived from Laleham - This has been delivered to drill site.

2.55 pm Fitters to check the mine fan going down now.

2.57 pm A. Whyte for W. Allison.

3.20 pm Peter Rose sample Report 2.45 & 3.10 pm

L. Cumner report from drill site.

No. 5 N2 injection free fall. Waiting on generator set.

No. 1 Plumbing hole - Stopped injection, will install stand pipe.

No. 3 Water won't go down the hole. Could be going into X seam.

No. 6 Reamed out to 7 1/4 down to 61 metres.

No. 7 Reamed out to clean hole down 75 metres.

No. 9 Being drilled.

Some problems with monitoring pumps.

3.26 pm No spare pumps available. Take the sample pump from 4 South sample line.

3.20 pm Refused to allow C. Dellar-Smith to bring a relative of P. Waning onto the lease.

3.45 pm Decision made to use MORCOL explosive in an attempt to break-out coal wall from the bottom of No. 3 hole.

4.15 pm J. Duncan informs No. 2 sealing completed.

4.35 pm M. Caffery requires portable radio at drill site.

4.38 pm Meeting held to discuss Mines Rescue operation underground. The meeting decided on a plan of attack and objectives for each time.

4.50 pm L. Cumner and J. Brady went to visit borehole site.

5.00 pm Received 4.30 and 4.50pm Sifor results.

5.01 pm M. Caffery reported they are stopping N2 flow into #5 borehole because of leakage. Moving to (possibly) #7 borehole.

5.30 pm Call from drill site to arrange for 3 miners for

5.31 pm 5.15pm Sifor results.

5.40 pm 5.30pm Sifor results.

5.42 pm Borehole site rang for an electrician. Could not find one at Underground. Was informed standby electrician had gone over to site. I let them know.

5.48 pm 5.45pm Sifor results.

6.05 pm 6.00pm Sifor results.

6.15 pm J. Anderson arranging a boilermaker for borehole No. 5. 6 cap lamps and generator for drilling site.

7.15 pm Message to drill site. Not to start pouring N2 into hole #5. Hole #1 blocked and stand pipe being pulled. GFG sample taken at fan drift.

8.00 pm Fan drift sample 20.7% O2 - 79.05% N2. Hole #3 exhausting H2 < 500 ppm O2 19.9%, N2 79.1%, CH4 0.1%, CO 50 ppm.

9.00 pm

- 11.30pm Discussion on present situation.

Hole 1 blocked possibly by eroded sides. Preferred hole, into a road, good candidate for reaming and casing. Modify stand pipe. Construct derrick for lowering and raising sample pipe.

Holes now	#2	Sample Hole
	#3	U/S
	#4	Sample Hole
	#5	Sucking - may be used for water. Top of stand pipe will require cutting off.
	#6	Being
	#7	Drill broke down
	#8	Drilling
	#9	Drilling

L. Cumner - Ream out and case holes #8 and #5.

#8 Drilling 9" hole to be stopped and taken #5 Ream.

Call from D. Rowlands, that the N2 will remain as a pool of liquid for up to 3 days.

Due to position of holes, and disirability of hole position the final result is:

#9 to complete hole for sampling

#8 move now to #5, ream and case

#6 complete reaming and case

Availability of N2 Liquid:

On Site	-	40 tonne
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4.00pm Monday	-	18 tonne
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6.00pm Monday	-	18 tonne
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Monday, 21st July 1986

12.20 am Meeting between J. Anderson and P. Ledger, re  
stand pipe for Hole #6.  
Advised P. Ledger and T. French of 6.5% CH<sub>4</sub> from  
hole #5.

12.25 am Advised M. Robertson on priority for sampling from  
hole #9.  
P. Ledger advised hole #9 should be completed by  
2.00am.  
M. Robertson to test sampling tube prior to use.

12.45 am D. Fowler left site.

1.15 am Gas reading received from hole numbers 2, 4 & 5.

1.20 am Barometer reading 1025mb and steady.

2.45 am Gas readings from Borehole Nos. 2, 4, & 5.

2.50 am Update from P. Ledger on Borehole No. 9, 8 & 6.

(i) 2.15am hole at 127 metres - Borehole 9.  
Estimated time of completion now  
4.00am.

(ii) 2.15am - Borehole 8 at 75 metres.  
Estimated time of completion 4.00pm  
20/7/86.

(iii) Hole 6 - 2.15am, Depth 168 metres.  
Estimated time of completion 3.00am -  
Casing has arrived.

3.10 am Gas readings received from holes 2, 4 & 5.

3.30 am Gas readings for hole numbers 4, 5 & 2.

Update from Max Robertson on sample tube for Hole  
#9. Tube run out ready to test, hole nearly  
complete.

4.30 am Gas readings - holes 2, 4 & 5.

5.20 am Gas readings - holes 2, 4 & 5.

5.50 am L. Cumner arrived.

6.07 am P. Ledger reported Hole #9 completed at 5.15am. Sample tube to be installed when drill rods removed.

6.50 am Professor Rowlands rang - did we use the evaporator. Tell R. McKinnon he rang - liquid nitrogen not effective.

7.07 am R. Thompson and Paul Johnson went to check fan.

7.09 am Call from Colin Connolly - C.I.G. Newcastle. He asked for Les Grimshaw to contact him.

7.15 am Rick Gazzard advised that the drill rods have been withdrawn from Hole 9.

7.18 am R. Thompson and Paul Johnson back from checking the fan.

7.35 am Gas results received from holes 2, 4, 5 & 9.

7.45 am G. Smith arrived on site.

7.50 am John Brady and Ross McKinnon on site.

8.00 am D. Wilson on site.

8.35 am Gas results received for holes 2, 4, 5 & 9 (8.00). Gas results received for hole #9 (8.15).

8.45 am Meeting - L. Cumner, D. Wilson, J. Brady, R. McKenna and Sgt. Black commenced.

9.15 am G. Smith, W. Allison and M. Best advised of conclusion of meeting:  
    (i) To wait for results from borehole #5.  
    (ii) Pending results from borehole #5.  
Exploratory team to examine goaf edge, take samples and measure air quantities.

9.45 am Borehole #5 - Readings received - OK.

10.00 am D. Rowlands to R. McKinnon, re information of Nitrogen.  
  
D. Kerr advised rescue team for exploratory trip.

10.15 am R. McKinnon departs for press briefing.  
  
L. Cumner departs on tour of drilling activity.

10.30 am D. Wilson to G. Hardy - update.

10.50 am Underground workshop requests jib crane ASAP.

10.55 am G. Smith to R. McKinnon at Moura House. Rescue team assembling.

11.20 am Borehole report received from R. Gazzard.

11.25 am Rescue team dressing.

11.27 am Chemists advised that rescue team is about to go underground.

11.28 am K. Morely advised that R. McKinnon is about to give press statement.

R. McKinnon advised that rescue team is about to go underground.

11.40 am Borehole sample results received.  
J. Brady underground to sample for dust (with M. Best and D. Kerr).

11.53 am Phone - Kerry to G. Smith - re press statement.

12.00 md G. Smith advised that 100 and 400 ASA film required.

12.05 pm 11.50am borehole sample results received.

12.08 pm Phone - G. Smith to P. Fiend (Oak Creek) request for helicopter to bring Mines Rescue gear (suits etc) from Blackwater.

12.11 pm Phone - A. Pocock to Blackwater Rescue Station - arranging equipment.

12.15 pm C. Ellicott to advise - Chemists to monitor Borehole #2 continuously.

12.27 pm Phone - Cook Colliery (P. Cutling) for W. Allison.

12.30 pm Results of Borehole #2 received.

12.34 pm Results of Borehole #2 received.

12.37 pm Results of Borehole #2 received.

12.40 pm Alan Kirby (Oak Creek) phone - Helicopter ETA

12.47 pm A. Pocock reported that the rescue equipment is at

12.55 pm Results of Borehole #2 received.

1.00 pm Results of Borehole #9 received.

1.00 pm Results of all Boreholes received.

1.13 pm Results of Boreholes # 2 & 9 received.

1.27 pm Phone - Stores to G. Smith, ie film for camera.

1.30 pm Rescue team on way to surface.

1.38 pm Results of Borehole #2 & 9 received.

1.50 pm Team out of mine.

2.10 pm Results of Boreholes #2, 4, 5 & 9 received.

2.15 pm Volume of air flow at #9 borehole calculated to be 14 CU. MT/SEC.

3.42 pm Vaporizer ready - priming pipes - waiting for cement at collar.

3.45 pm Results from boreholes received. Sampling to be continued on an hourly basis unless some significant change.

3.57 pm Meeting terminated.

4.05 pm Reported E.T.A. of plane with sample bladders from Blackwater 5.00pm @ Searles Strip.

4.08 pm Permission given to commence unlocking N2 after V. Hill is satisfied collar concrete is OK (approximately 1 hour).

4.25 pm Messrs. Wilson, Brady and Cumner departed to visit boresite then Moura House for inspections and Biloela for Mr. Cumner. Mr. McKenna to the Burradoo.

5.27 pm Commenced injecting N2 into Borehole #6.

5.45 pm Mr. Lovely - Mines Department arrived.

5.47 pm 5.30pm borehole results rang through. Request made to increase the number of samples, 1 every 15

6.00 pm Shut down N2 injection due to leakage at collar.  
To re-commence at 8.00pm.

6.45 pm Borehole update  
#1 - 12 metres  
#7 - 120 metres Est. 9.00pm completed.  
#8 - 165 metres 5 metres to go.

7.45 pm Sample results received.

8.05 pm N2 injection re-commenced #6.

8.20 pm #8 hole completed.

8.25 pm 8 tonne/hour going down the hole. No appreciable  
leakage.

8.35 pm Sample results.

8.45 pm Rang J. Brady re results.

8.34 pm Results for #8 O2 20.4 CO 75 ppm  
CH4 0.3 CO2 0.08

9.30 pm Results received.

9.40 pm Discussed with Dick Keen, CIG, possibility of  
further tanker for transport.

Discussion with J. Shoebridge. 8.00pm - 9.00pm  
Used 7 1/2 tonne. He will continue for the next  
hour at the similar rate and then consider a  
lesser rate so that N2 can be conserved.

9.45 pm J. Shoebridge reports 9 tonnes per hour rate.

10.10 pm G. Mason went to open fan door.

11.10 pm Dick Keen informed me that another N2 load has  
been arranged. E.T.A. 10.00am.

11.15 pm N2 cut back to 5 tonne per hour to empty truck  
without effecting big tank.

11.20 pm Capped #2, #4, #5 & #9 at surface.

11.35 pm N2 cut back to 2 tonne per hour.

11.50 pm G. Mason & D. Fowler went to open doors on

Tuesday, 22nd July 1986

12.05 am T. Vivian & L. Eckart went to check fan.

12.06 am D. Fowler and G. Mason back in office.

12.10 am T. Vivian & Eckart back on surface from fan - OK.

12.13 am C. Ellicott reports N2 leakage is approximately 2 1/2 cubic metres pe second, provided air quantity in Dip is the same as it has been.

12.25 am J. Brady, D. Fowler and I. Shoebridge decided to increase N2 rate to 4 tonnes per hour.

12.32 am J. Anderson and L. Eckart reduced speed of fan to run at zero water guage.

12.39 am Base advised that N2 injection rate is now 4.5 tonnes per hour.

12.49 am Base advised that N2 injection rate is 5 tonnes per hour. This is the lowest rate possible without stopping the pump.

12.56 am D. Fowler, G. Mason, and J. Brady down to inspect fan.

1.07 am J. Brady, G. Mason and D. Fowler back in office. Reported that air quantity has been dramatically reduced - Slight haze and smell in fan drift.

1.24 am Gas readings for holes 2, 4, 5 and 9.

1.25 am J. Anderson and L. Eckart down to check fan.

1.30 am J. Anderson and L. Eckart returned.

1.49 am Base advised N2 rate is now 4.5 tonnes per hour.

2.05 am D. Fowler rang L. Cumner - explained situation of N2 rate of 4.5 tonnes per hour at reduced fan speed - O2 content of dip steady at approximately 18%. Don suggested that brattice stoppings may be required. Len did not approve of this plan.

2.25 am Don instructed that N2 to be switched off and water to be put in Hole 8. Standpipe being installed.

2.26 am Len rang to say he is coming to the mine.

2.40 am Gas results from Hole 9.

2.46 am M. Caffery went to check on water injection into Hole 8.

3.10 am L. Cumner arrived on site. Gas results rang through for holes 2, 4, 5, and 9.

3.15 am Meeting between L. Cumner, J. Brady, D. Fowler, P. Reed, C. Ellicott - Discussed present situation.

3.32 am J. Anderson and L. Eckart down to check the fan.

3.45 am J. Anderson back in office.  
D. Fowler rang R. McKenna and D. Kerr.

3.55 am Oxygen results from holes 2, 4, 5 and 9.

3.58 am M. Caffery advised water injection is approximately 60 litres per second as from 3.15am in Hole 6.

4.00 am J. Anderson went down to increase fan to 0.4" W.G.  
D. Fowler, G. Mason went down to close doors in overcast No. 1 X-Cut.

4.15 am L. Eckart reported that the fan is now back to 0.4" W.G. and doors shut.

4.13 am D. Fowler back in office.

4.15 am Oxygen results for holes 2, 4, 5 and 9.

4.20 am D. Kerr on site.

4.32 am R. McKenna on site.

4.35 am A. Vickers, R. Barker, W. Allison and M. Best on site.

4.50 am C. Ellicott, M. Caffery, G. Mason, D. Fowler off site.

5.15 am R. McKenna rang Terry Keen, C.I.G. Brisbane to find whereabouts of Nitrogen tanker. The truck

6.00 am Call from D. Wilson - Len Cumner gave him an update.

6.08 am T. French gave update on water injection:  
Hole 6 - Pumping  
Hole 8 - Pumping

6.09 am R. McKenna advised that Nitrogen tanker is at Miles - Police excort being arranged.

6.10 am D. Wilson rang - P. Reed gave him an update.

7.08 am Phone call from truck driver. N2 truck arrived at Wandoan.

8.26 am 2 to 10 tonnes per hour - building up from 2 to 10 tonnes per hour Nitrogen introduction. Hole No. 6.

8.45 am Instructed Rescue Superintendents to brief teams and prepare for departure.

8.47 am D. Black advised that N2 truck is about 1 hour away - in radio contact.

8.54 am N2 injection now at 10 tonnes per hou.

9.05 am First borehole sample results.

9.12 am N2 truck about 20km away.

9.20 am Borehole results received.

9.35 am Borehole results received.

9.37 am C. Glazbrook and team on site.

9.38 am N2 truck at boreholes.

9.42 am Third borehole results relayed to G. Smith.

9.50 am Two rescue teams are about to enter the mine.

9.59 am Stopping erection team left F.A.B.

10.04 am Team under O2 left F.A.B.

10.07 am Borehole analysis received.



10.38 am 10.30am borehole results received.

Stopping team reported North Return stopping completed - Brattice was being put on supply road.

10.45 am Only 20 tonnes N2 level.

10.46 am Seat of fire found - 24 C/T between conveyor road and transformer road.

10.50 am Transformer road stopping completed.

10.54 am 10.45am borehole analysis received.

11.04 am Working on 'S' return stopping - all others complete but door open on No. 4 E.T. to complete - 15 minutes.

11.06 am Water commenced at No. 2 borehole.

11.08 am Results of 11.00am borehole samples received.

11.21 am N2 temperature steady at 30 degree C.

11.24 am 11.15am borehole results received.

11.27 am Only 1 hours N2 supply left at current rate.

11.30 am Exploration team back at surface.

11.41 am 10 tonnes N2 left but only 8 tonne pumpable.

11.49 am 11.30am results received - new sampling position set up inbye of stopping - No. 9.  
Note : 9A is the original position of 9.

11.56 am 11.45am results received.

11.56 am 4.25 tonnes N2 left.

12.12 pm Stoppings team back at surface.

12.14 pm 12 Noon results received.

12.07 pm N2 rate reduced to just less than 4 tonnes per hour.

12.26 pm 12.15 results received.

12.45 pm 12.30pm results received.

12.55 pm N2 off. Received 12.45 gas results.

1.15 pm R. McKinnon contact John Tysoe - Department Resources and Energy - Following up offer of Senator Evans re use of R.A.A.F. Seeking assistance in transporting by air, tankers of liquid N2 from Brisbane or Sydney areas. He will return with R.A.A.F. contact for C.I.G. communication.

C.I.G., Dick Keen and Bob Thomas are investigating:

- (a) Availability of additional tanks.
- (b) Weight and dimensions.

1.40 pm B. Thomas received dimensions of tanker from C.I.G. Brisbane.

Dimensions are for 18 tonne of liquid Nitrogen:

Liquid and Trailer:

Weight	-	32 tonnes
Length	-	12 metres
Height	-	3.4 metres
Width	-	2.5 metres

With Prime Mover:

Weight	-	40.5 tonnes
Length	-	17.5 metres

C.I.G. contact in Brisbane Chris Leon  
(Phone : 07 - 2750236).

2.12 pm Gas readings for 2.00pm samples received.

2.15 pm Call from Alan Woods to Ross McKinnon - R.A.A.F. Clearance approved. Hugh White from Office of Minister of Defence will contact R. McKinnon re arrangements.

3.12 pm Gas results for 3.00pm - Samples now every 15 minutes.

3.13 pm Call from John O'Callaghan to R. McKinnon.

3.15 pm      Update of N2 Tankers:

                 15.6 tonnes leaving Townsville      -      4.00pm

                 32 tonnes to return to Townsville  
   to leave 6.00pm

                 Brisbane - 14 tonne                              Arrive      8.00pm

                 2nd Brisbane - 17.5 tonne waiting

                 3rd Brisbane - 15.6 tonne  
   - Leave Brisbane 7.00pm

                 Sydney - 14 tonne      - Leave Brisbane 6.00am

3.35 pm      3.20pm results received.

3.40 pm      R. McKinnon. By 3.00pm will have 107 tonnes  
                 here.

3.44 pm      Advice received from J. O'Callaghan that  
                 R.A.A.F.'s limit is 500kg. They were advised to  
                 forget flying the tanker awaiting in Brisbane.

3.46 pm      Decision made that 2nd tanker (ie. 17.5 tonnes) to  
                 come by road with Police escort.

4.00 pm      P. Reed left site.

4.09 pm      Surveyors going home.

4.20 pm      Agreed to inject N2 at the rate of 2 tonnes per  
                 hour when the first truck arrives.

4.28 pm      1st truck reported to be 5 minutes south of  
                 Taroom. E.T.A. now 6.00pm.

4.54 pm      4.30pm results received.

5.05 pm      D. Wilson left for Moura House.

5.10 pm      5.00pm results received.

5.40 pm      5.30pm reports received.

5.55 pm      J. Shoebridge arrived.

6.00 pm      1st N2 truck on site.

6.12 pm 6.00pm results received.

7.05 pm Instruction given by R. Gazzard to P. Ledger "NOT TO DRILL HOLE #10 INTO THE SEAM".

7.15 pm 7.00pm reports received.

7.40 pm J. Shoebridge reported that evaporator is ready for injecting. T. French will require half an hour to turn off water.

7.43 pm 7.30pm reports received.

8.15 pm 8.00pm reports received.

8.25 pm C. Ellicott arrived.

8.45 pm 8.30pm reports received.

8.50 pm J. Shoebridge instructed to allow N2 to be introduced into the seam at its natural flow rate.

9.00 pm R. McKinnon rang from Moura House. He is with J. Brady and D. Wilson and requests he is informed if there are any significant changes.

9.05 pm J. Shoebridge reports he is starting to introduce N2. In answer to his question, I told him maximum temperature.

9.25 pm N2 flowing down #6. Significant leak at collar of borehole #8.

9.35 pm J. Shoebridge - N2 flow down #6 has stabilised at 3 tonnes per hour at 30 degree C.

9.40 pm Water reconnected to #8.

9.45 pm J. Shoebridge - Concerned that gas temperature up to 40 degree C. D. Fowler instructed that temperature be dropped to 25 degree C.

9.45 pm 9.30pm results received.

9.56 pm Water flowing down borehole #8.

10.00 pm Temperature of N2 going in at 36 degree C, slowly reducing.

10.20 pm 10.00pm results received

10.25 pm Reports flow rate 2 tonnes per hour. Increasing to 3 tonnes per hour.

10.30 pm Checking #1 borehole for exhausting or sucking.

10.35 pm Request 3 1/2 metres from V. Hill to repair leak in borehole #8.

10.43 pm Borehole #1 blowing strongly with 15% CH<sub>4</sub>. Left uncapped.

10.45 pm 10.30pm results received.

11.05 pm Temperature of injection down to 25 degree C. Rate of injection down to 1 tonne per hour. Going to use pump to bring it back to 3 tonnes per hour.

11.15 pm 11.00pm results received.

11.20 pm 4 tonnes per hour at 24 degree C into borehole #6.

11.45 pm 11.30pm results received.

11.50 pm 8 tonnes N<sub>2</sub> in tank. 3 tonnes per hour.

Wednesday, 23rd July 1986

12.07 am Reducing tonne/hour rate to conserve N2.

12.40 am 12 midnight results received.

12.45 am Received 12.30am results.

1.00 am Fitter reported that fan W.G. was now 0.4 to 0.5" W.G. This could be expected as the seals erected by the Mines Rescue Brigade reduced the number of damaged seals available for short. This would increase the resistance.

Cap taken off No. 2 borehole, exhausting plus 10% CH4.

Starting @ 1.00am.

Sample Bore #4	0.1%	CO2
#5	0.1%	CO2
#9A	0.1%	CO2
#9	0.08%	CO2
#2	0.1%	CO2

1.10 am N2 tanker on Gibihi Road.  
1 tonne per hour being introduced to the mine at 20 degree C. 5 tonnes remaining.

1.20 am N2 tanker on site.

1.25 am Received 1.00am results.

1.45 am J. Shoebridge reported #2 tanker ex Brisbane was coupled up and on injection rate of 3 tonnes per hour was being maintained.

1.45 am Police report:  
#3 tanker at Miles 1.35am  
#4 tanker would leave Brisbane 3.00am

2.10 am P. Reed arrived.

2.15 am Received 2.00am results.

2.30 am N2 tanker leaving site - Escort will meet him at Theodore.

2.44 am R. Newton reported the results form the top of the boreholes:

Time	Hole	CH4	CO
2.00	5	4.7	200
2.05	4	7.0	250
2.10	8	8.5	300
2.05	1	3.5	300
2.20	2	5.0	280

3.47 am Gas results for 2.30am samples.

3.48 am J. Anderson back from checking the fan.

3.50 am Methane results for hole rang through.

3.12 am Gas results for 3.00am sampling.  
Advised J. Anderson not to check the fan until further notice.

3.25 am Methane results for hole 2, 4 & 9A.

3.45 am 3.30am results obtained.  
Told C.I.G. N2 rate increased to 4 tonnes per hour.

4.05 am P. Ledger advised that rate has been about 3 - 4 tonnes per hour. Only 10 tonnes left. Can maintain present rate only for one more hour. Will then have to drop back to 1 tonne per hour. Asked Police to get update on trucks.

4.15 am - Semi from Townsville in Rockhampton - Refueling.  
- Road Train in Mackay - refueling - can only travel at 70km/hour. E.T.A. 3.00pm.

4.17 am Gas results for 4.00am.  
Asked to re-check CH4 readings.

4.20 am Rate reduced to 2 tonne per hour.

4.25 am Rang R. McKinnon to give update.

4.37 am Rang L. Cumner on situation.

4.37 am Update on Top of Drill Holes

<u>Time</u>	<u>Hole</u>	<u>CH4</u>	<u>CO</u>
3.40	5	5.5	260
3.45	4	6.5	220
3.50	8	8.3	260
4.00	1	3.6	280
4.10	2	5.0	220

4.45 am Rang R. McKinnon to give update.  
- Will check on water levels in goaf.  
- Will pump N2 down into hole #8.

5.07 am Nitrogen pumping into hole 8 at 1 tonne per hour.  
Asked T. French to check water level in hole 6

5.15 am 4.00am gas results for 5.00am.

5.25 am Hole #10 stopped 9 metres short of break through  
at 4.30am.  
J. Brady arrived.

5.35 am L. Cumner arrived.

5.36 am J. Brady and L. Cumner went to drill site.

5.40 am Police advised Townsville tanker between Dululu  
and Jambin.

5.44 am 5.30am gas results.

5.55 am Police advised Brisbane tanker at Theodore.

6.04 am N2 lines being run to hole 10, to drill hole with  
Nitrogen.  
L. Cumner and J. Brady arrived back.

6.10 am 6.00am gas results.

Police reported:  
(i) Brisbane Tanker north of Theodore.  
(ii) Townsville tanker at Biloela.

6.17 am R. Newton : Gas readings from top of boreholes:

<u>Time</u>	<u>Hole</u>	<u>CH4</u>	<u>CO</u>
5.40	5	6.0	250
5.45	4	6.5	240



6.25 am Brisbane tanker at Gibihi Road - T. French went to escort to drill site.

6.35 am G. Smith arrived on site.  
Brisbane tanker on site.  
Townsville tanker at Valdeen.

6.40 am R. McKinnon on site.

6.45 am Gas reading for 6.30am.

7.00am townsville tanker on site.  
W. Allison and M. Best on site.

7.14 am 7.00am gas readings.

7.20 am J. Anderson off site.

7.36 am P. Ledger advised that hole 10 has 4 metres to go  
- Switching over to N2.

7.36 am Police advised road train of N2 at Marlborough.

7.40 am 7.30am gas results.

7.53 am Message from John Shoebridge advised that leakage of N2 is occurring from hole 8. As such N2 injection has been switched to hole 6 at 3 tonnes per hour.

8.30 am Advised that N2 flow rate 0 tonnes/hour due to N2 required at drilling hole 10.

8.35 am Bob Thomas advised that the road train is 5 minute south of Rockhampton. It is planned to obtain a 2nd prime mover to speed up delivery.

D. Wilson brought in GFG tube samples.

8.20am	Tube No. 75	9A Borehole
8.20am	Tube No. 61	No. 2 Borehole
8.20am	Tube No. 50	No. 2 Borehole

8.45 am 8.30am gas results.

8.53 am 2 tankers leaving lease to return to Brisbane.

J. Shoebridge:  
- N2 injection through 6 and 10 at 8 tonnes per

9.00 am R. Mc Kinnon - Contacted Inspector of Police to confirm escort arrangement for tankers on return trip.

9.04 am C. Ellicott on site.

9.06 am Tankers advised to start return trip and escort will pick them up on the way.

Inspector Pat Bruton called R. McKinnon re escorts for return tankers. Confirmed OK. Will re-contact if any further problems with escorts.

9.10 am Call for R. McKenna from J. Strang re enquiry for 10 502 probes.

9.12 am 9.00 gas results.  
M. Caffery on site.

9.16 am Inspector Bruton for R. McKinnon. Escorts OK for next 24 hours. Will then be reviewed.

N2 Injection  
1.5 tonnes per hour down #6 (approx)  
2.0 tonnes per hour down #10 (approx)

9.23 am Advised to re-instate #8 hole and attempt to case #1 hole.

L. Cumner - Ordered men not to work on #8 or #1 whilst gas readings are in danger zone.

9.30 am GFG samples from holes #2 and #9A taken to laboratory for analysis.

9.36 am J. Hardy - Decision made to cease water injection to prevent possible immersion of bottom of hole #6.

9.40 am 2 extra chemists called out for assistance with operation of analysis equipment.

9.50 am 9.30am gas results.

N2 injection rates - 3 tonnes per hour Total  
- 2 tonnes per hour #10  
- 1 tonne per hour #6

9.58 am Danny Day - Told to keep coverage in store on afternoon and night shifts going.

10.04 am Called Bureau of Meteorology re expected barometric variation for next 6 - 7 hours.

10.06 am Report on tankers from Townsville - Both at Dululu.

N2 injection presently 3.2 tonnes per hour.

Barometric Variations Expected - Quiet until 6.00pm when trough approaching from west should arrive.

Arrangements for recovery - Gas analysis results to go directly to D. Fowler's office. Also to be direct contact between D. Fowler's office and nitrogen injection site.

10.14 am 10.00am gas results.

10.15 am Townsville tankers at Wowan.

10.26 am Top of hole readings  
#8 10% CH4 200 ppm CO  
#5 6.5% CH4 200 ppm CO

10.28 am #8 uncapped.

10.30 am Gas analysis - Receipt point transferred to Don Fowler's office.

10.40 am Inspector Pat Bruton to be notified immediately. Bodies are located by Rescue Team. D. Black to convey this message.

10.45 am 10.30am gas results.

10.46 am Tanker from Brisbane arrived 10.40am.

10.50 am R. McKinnon leaving for Moura Police Station.

10.55 am R. Gazzard, G. Smith, L. Marshall leaving for complex conference.

Electrician required for nitrogen injector.

11.15 am Gas results 11.00am

11.15 am Gas results 11.00am.  
Tanker from Townsville between Banana and Moura.  
2nd tanker from Townsville 15km north of Banana.

11.25 am 2nd tanker from Townsville at Banana.

11.29 am Gas analysis by Chromatograph from #2 and #9A  
sample points.

11.36 am 2nd Townsville tanker on 3 Chain Road.

11.40 am 2nd Townsville tanker on site.

12.15 pm G. Smith returned to site.

12.25 pm R. McKinnon returned to site.

12.40 pm M. Caddell - Chemists trying to contact control.  
Mr. Smith advised rescue control and rectified.

12.45 pm Rescue Team left surface.

1.40 pm Chris Ellicott advied #5 Borehole should be  
capped.

1.50 pm Hole #5 checked - Capped - more weight to assist.

DAY SHIFT STAFF CLEAR 7.30PM

7.45 pm      7.30pm results received.

8.00 pm      Call from T. Stewart - Pozzalanic with information  
of fly ash transport. Told him not required  
before 6.00am.

2 trucks ex Brisbane    E.T.A. 6.00am  
1 truck ex Gladstone    E.T.A. 6.00am

Then 6 1/2 to 7 hour turn round.

He is arranging for further trucks and will  
contact L. Cumner Thursday am.

9.00 pm      Water in #8 borehole.

10.45 pm     Evaporation has been off 2 hours due to broken  
fitting and moving to new site. Estimated time of  
re-starting 11.30pm.

11.22 pm     M. Caffery advised that N2 injection has started 1  
- 2 tonnes per hour.

Thursday, 24th July 1986

12.07 am M. Caffery advised current status of drill holes:

Hole 6 N2 at 1 - 2 tonnes/hour - 25 tonnes left.

Hole 7 Water 60 litres per second.

Hole 8 Water 60 litres per second.

Hole 5 Water level monitoring.

12.08 am P. Ledger advised that P.V.C. casing is not suitable for liquid Nitrogen. Test showed casing cracked.

P.V.C. casing being installed.

2.20 am N2 rate 1 tonne per hour.  
Casing of hole 10 completed.  
J. Anderson started on standpipe for Fly Ash injection.

3.55 am Asked D. Keen to increase rate to 2 tonnes per hour if possible due to trend of O2 and CH4.

4.25 am Two Nitrogen tankers on site. N2 rate approximately 2 tonnes per hour.

4.45 am T. French reported that no water indication in hole 5.

5.20 am N2 tanker on site (Total of 3 now on site).

T. French advised that there is a small electrical problem with the N2 injection equipment.  
electrician sent to the site. Unit still functioning.

Standpipe for Fly Ash injection completed - Taken to drill hole No. 10.

5.30 am Electrical problem repaired at N2 injection site - No interruption to flow of N2.

6.45 am N2 injection rate increased to 3 tonnes per hour.  
One Fly Ash truck at main store. 58 tonnes on

7.40 am      Reported Borehole #10 had an upsurge of borehole casing.

10.10 am     1 tonne Fly Ash into #10.    Hole blocked.

12.15 pm     Water level 3 metres below hole roof level Bore #5.

12.30 am     Water turned off hole #7 and #8.

             #4 men at work Days  
             M. Caddell  
             R. McMullen      R. Harvey

             Bore #2 and #9A    CO2    0.1%  
             C. Ellicott says "unremarkable".

2.45 pm      2.30pm gas results.

3.30 pm      N2 injection rate increased to 4.6 tonnes per hour for 2 hours.  
             #11 at 42 metres depth  
             #10 still attempting to unblock.

4.30 pm      #1 at 70 metres depth.    Estimated completion time 7.00 - 8.00pm.

             Sample required from bottom of #11 when hole completed.

5.25 pm      N2 injection rate to remain at 4.6 tonnes per hour until 6.30pm, then reduce to 1.6 tonnes per hour.

             #11 hole at 96 metres depth.

             Fly Ash drivers at Contractors Camp.

6.30 pm      Call from J. Brady (Mines Inspector) for update on information.

6.40 pm      6.30pm gas results.

7.50 pm      N2 injector shut down to install gate valve in delivery line.

8.20 pm      N2 injection recommenced at approximately 3 tonnes per hour through hole #6.    Nitrogen now being used for clearing #10 and drilling #11.

8.45 pm 8.30pm gas results.

9.20 pm Hole #10 cleared at 9.10pm.  
N2 feed rate 1 tonne per hour through hole #6.

9.40 pm 9.30pm gas results.

9.50 pm Drilling #11 with Nitrogen (4 tonnes per hour)

10.40 pm 10.30pm gas results.

11.00 pm #11 hole drilled into pillar.  
Decision made to attempt to pump Fly Ash down #10  
hole through 2" drill rods using Nitrogen gas as  
medium and begin drilling No. 12.

Nitrogen injection rate down #6 to be increased to  
5 tonnes per hour (started at 12.15pm).

11.30 pm Gas results received.



Friday, 25th July 1986

12.40 am 12.30am gas results.

1.40 am 1.30am gas results.

2.40 am 2.30am gas results.

3.50 am N2 feed rate lowered from 5 tonnes per hour to 2 tonnes per hour.

4.40 am 4.30am gas results.

5.40 am 5.30 am gas results.

6.00 am #12 hole down 23 metres.  
#10 hole installing 2" drill rods.

7.00 am L. Cumner and L. Graham did an inspection of portals at No. 4 Underground and entry to "A" section portals fenced okay.

10.00 am P. Lobodin going to assist chemists.

12.10 pm Gas results.

12.15 pm Cancelled possible underground run due to lack of N2 reserve.

12.25 pm Rang W. Allison, Ipswich; and Mines Department Rockhampton A. Hepburn took message - Cancelled proposed operation Underground. Nitrogen supply truck broke down. Only 2 1/2 hours at maximum feed available. Not enough, will wait until tomorrow.

Saturday, 26th July 1986

12.05 am Water Gauge 0.4"

12.15 am Gas results

1.15 am Gas results

2.10 am Water Gauge 0.4"

3.10 am Gas results

4.10 am Water Gauge 0.4"

4.15 am Gas results

5.12 am Gas results

5.40 am Water Gauge 0.4"

6.10 am Gas readings

STATEMENT

JOHN PATRICK BRADY states:-

I am 41 years of age, (D.O.B. 4th August, 1945) and I reside with my wife and family at 97 Edington Street, Rockhampton.

I have been employed by the Queensland Department of Mines as Inspector of Coal Mines for the Central Queensland District since the 29th November, 1982.

I hold a Queensland First Class Mine Managers Certificate No. 3314, which was issued by the Board of Examiners on 25th August, 1981.

My practical experience in the mining industry is as follows:-

1967 to 1973	Mineral Exploration.
1973 to 1978	Underground Miner then Mine Deputy, Leichhardt Colliery.
1978 to 1982	Undermanager, Cook Colliery, Undermanager Laleham No. 1 Colliery, Undermanager in Charge and Acting Mine Manager, Laleham No. 1 Colliery.

During a routine inspection of the Moura Mine Leases on the morning of 16th July, 1986, I was informed of an abnormal occurrence at the Moura No. 4 Underground mine. An assessment of information received from Mr P. Reed, Mr G. Mason and other employees, it was apparent that a serious incident had occurred in the Dip Section of the mine.

After assisting with the initial recovery operations, a detailed investigation into the nature and cause of the disaster was commenced.

This report, entitled An Investigation into the Moura Mine Disaster, 16th July, 1986, details -

- (a) the events leading up to the disaster,
- (b) the recovery operations, and
- (c) the subsequent investigation.

SIGNED .... *J.P. Brady* .....

J. P. BRADY