

FILE NAME: Colonial Sugar Refinery (CSR)

DATE: 1960 Dec 20

DOC#: CSR107

DOCUMENT DESCRIPTION: Letter to A.B.A. Wittenoom Manager with Govt Inspection Results & Tabulation of Dust Counts

DISTRICT INSPECTOR OF MINES
(Vic.)

167

KALGOORLIE.

The Manager,
Australian Blue Asbestos Limited,
WITTENOOM.

20th December, 1960.

Dear Sir,

Assistant Inspector Simmons has supplied me with figures and information obtained during his last inspection of your mine.

After correlating all the facts and studying the mine plans, I now wish to advise you, and to make requests as follows:-

The long break between shifts is having the desired effect of clearing the mine atmosphere before the commencement of afternoon shift operations in your upper seam workings. It was also found that greater use was being made of secondary ventilation appliances. This is assisting towards more healthy conditions but many working places still require the installation and constant assistance of secondary ventilation. I must request that you install secondary ventilation, fed from the purest source in all working places which are not in the direct airflow, and that the use of such appliances be enforced at all times.

In the Lower Seam workings the long break between shifts is wasted. Your present mining system on the lower seam is to mine from a manway and chute and form 'Blind Stopes'. As these stopes extend, an area is opened, which cannot be adequately ventilated at any time by a fan and ducting.

Further to this, the ducting cannot be correctly placed until a workman enters the stope after firing, and therefore the long break between shifts is wasted, and the workman is exposed to fumes and dust.

I must request that all stopes have a 'through' airway, and that faces away from the through air current be ventilated at all times by secondary ventilation.

It is suggested that these stopes can be ventilated by 'stope drives' as used in your old mining system in the upper seam workings.

Indiscriminate crib time firing is having a detrimental effect upon our efforts to make better working conditions. There should be no necessity for men to fire at crib time, because of the abundance of working faces.

Secondary blasting in chutes is increasing and this increases the dust and fume hazard. There should be no necessity for this in your shallow chutes and the practice could quite easily be eliminated by anchoring the stope grizzly bars in place, so that they cannot be 'spread' by scraper drivers.

Dust is still being generated in your main adit at the conveyor transfer point and at No 4 level bin. Dust counts of 350 p.p.c.c. and 460 p.p.c.c. respectively were recorded at these positions. I must request that action be taken to remove this dust which at present enters the main ventilating flow. It

.../2



is suggested that fans, exhausting from these points will be the only efficient remedy.

It is apparent that some 'bad practices' are the result of inadequate supervision in your Miners' School, and the new men are being instructed only in the art of using a machine, charging up, and firing. When my Inspectors visited this School, the students were boring some 150 feet from the mainway and through air current. Although an electric fan was installed to draw air from the upper seam workings to ventilate the stops, no ducting was attached. Aside from the ventilation aspect, students were boring in faces in which butts had not been cleaned out, and broken rock not completely bagged back from the face. It was therefore impossible to examine the bottom of the face. These breaches of the Mines Regulation Act can not be tolerated and it is requested that decisive action be taken. This school is no doubt, an integral part of your mining project, and in future you will be relying on these men to play the major role in mining activities. If strict supervision is not given, and regular safety measures enforced, haphazard methods will result. This will be followed by unsafe mining and unpleasant action.

At the time of my Inspectors' visit, the lower seam was being opened up off the 2, 3 and 4 levels. The same mainways and chutes are used for both the lower and upper seam workings. The air passing along Nos 2, 3 and 4 levels passes directly up the mainways and chutes (when open) into the upper seam working and thence to exhaust without serving any useful purpose. All stopping on the upper seam has now advanced below No 4 level. Following my ventilation Inspector's survey in June 1960, all mainways on Nos 2 and 3 levels were bratticed off; also all chutes on No 2 level. Since our visit in September 1960, the mining of the lower seam has commenced resulting in the brattices being either dismantled, blown out, or damaged. The position now is that 3,000 cumins entering No 1 level, plus 21,000 cumins entering No 2 level, plus 22,000 cumins entering No 3 level are going to waste (except that required to supply the secondary fans on 2 and 3 levels, which would amount to approximately 15,000 cumins.) Approximately 35,000 cumins at least, are going direct to the exhaust fan without serving any useful purpose. The exhaust fan was measured at 92,000 cumins, therefore wastage is greater than one third, and could probably approach one half of the total air supply.

My Inspectors reported that only on two occasions, did they find the spray working over the main mine transfer bin. This spray must be operating at all times when the bin is being fed with ore.

It was also reported to me that in many instances the scraper men were not correctly using the sprays provided. Please ensure that these sprays are used.

The only air, from the total of 92,000 cumins, that is available to ventilate the workings below No 4 level amounts to 31,000 cumins - this illustrates how unevenly the air is distributed throughout the mine generally.

The rise from 543 mainway to the surface will, on breaking through, alter the ventilation circuits, and a more controlled system of ventilation should easily be devised.

The main adit is very dry, and dust is raised by movement of miners in the adit. If the adit floor was sprayed with water collected from the bottom of the adit, this dust nuisance would be corrected.

Treatment Plant.

Conditions in the mill were consistent with previous inspections, and dust counts are still high.

More dust appeared to be liberated from the crushing section, than on previous visits. The transfer chute and tunnel contained bad conditions, and a count of 900 p.p.c.c. was recorded. The 12" EF drawing air from outside ventilates the chute position. Any dust liberated is carried slowly outside by the return airflow, causing the tunnel in which the chute is situated to be filled with dust. This can be prevented by having the fan exhausting from the end, instead of blowing in. This would cause pure air to flow into the tunnel, and the dust laden air will be exhausted through the ducting. Please have this alteration effected.

Will you please advise me, what alterations have been made, if any, to the dust collecting circuit of your mill, and what action is to be taken.

You will have noticed that the Mill dust counts are still far too high and action must be taken to improve this condition.

I fully realise the hardships encountered and the retardation of your underground programme occasioned by the change in your underground staff, but I look forward to improved conditions in the near future.

Will you please give all these matters your immediate attention.

Yours faithfully,

SENIOR INSPECTOR OF MINES.

*District Inspector of Mines
Cire.*

*Forwarded for your information
and records.*

*W. J. L. S. I. M.
27/1/60*

TABULATION OF DUST COUNTS

DATE	MINE	PLACE	COUNT	TEMPERATURE		REMARKS
				DAY	WET	
AUSTRALIAN BLUE ASBESTOS LIMITED.						
16-11-60	Colonial	6 level North Drive	180	83.5	80.5	Wash bag. Sat. 16" EF from 4000 cfm.
		7 " North Drive	50	82	70.5	Cleaning level. Sat. 15" EF from 7000
		5 " 5/8 Rise	610	78	75.5	Boring. Sat. 15" EF from 3000 cfm.
						(Rise up 35')
		5 " 5/8 Scraper	110	78	67	Scrapping - Thru air.
		5 " 5/8 Surface Rise	510	76.5	73.5	Boring - Adj thro air 1000 cfm.
						(Rise up 10')
		2 " 2000 L.S. Stope	550	76	67	Scrapping - Face 30' from manway.
						Dead pocket. No vent.
		3 " 9020 L.S. Stope	90	75.5	67	Boring - Dead pocket. No vent.
		3 " 9050 ^{B & W} L.S. Stope	50	77	71	Boring & Scrapping. Dead pocket.
						No vent.
		3 " 9050 ^{B & W} L.S. Stope	200	77	74.5	Prep to bore. Dead pocket. No vent.
		3 " 9010 ^{N & W} L.S. Stope	40	76	71	Machine temp idle 50' from duct 12"
17-11-60						EF from upper seam. No duct available
		3 " 9010 ^{N & W} L.S. Stope	40	76	71	Tailmans position 100' from duct 12"
						EF from upper seam. No duct available
		3 " 9000 ^B L.S. Stope	170	75	71	Boring 2 machines 80' from chute.
						12" EF in upper seam not working. Fan
						working and ducting rigged to within
						30' & 60' of each machine respect.
						before we left stope. No more ducting
				available.		
		3 " 9040 L.S. Stope	220	73.5	70	Boring 50' from manway. Dead pocket
						No vent.
		6 " 688 Scraper	160	79.5	73.5	Scrapping - Thru air.
		6 " 688 tope	170	80	72.5	Boring. Thru air. Vel 15'/min. 12" EF
						boosting airflow from level.
		6 " South Drive	150	78.5	76	Boring Sat. 15" EF from 4000 cfm.

TABULATION OF DUST COUNTS

DATE	MINE	PLACE	COUNT	TEMPERATURE		REMARKS
				DRY	WET	
AUSTRALIAN BLUE ASBESTOS LIMITED						
17-11-60	Colonial	6 level 658 Stope	230	78	72.5	Machine temp idle. Thro air Vel
		6 " 6000 Stope	160	81.5	75	Boring 30' from duct. Extended b
		6 " 628 Stope	180	79.5	75	work proceeded. 15" EF from 700
		6 " 628 Stope	200	83	73	Boring. Sat. 12" EF from 7000 c
28-11-60		4 " 4000 E L.S. Stope	240	80	75.5	Tailmans position. Sat. 12" EF
		4 " 4000W L.S. Stope	30	80	77	7000 cfm.
		4 " 4000W L.S. Scraper		80	76	Prep to bore. Sat. 12" EF from
		4 " 41N L.S. Scraper		78	74	Prep to bore. Sat. 15" EF from
		4 " 41N ^B L.S. Stope	30	78.5	74.5	seam.
		4 " 41N N & W L.S. Stope	80	78	74.5	Prep to scrape. Thro air.
		5 " 52N ^B & W Stope		78.5	74.5	Prep to scrape. Thro air.
		5 " 52N ^B & E Stope	40	79	75	Machine temp idle. Sat. 12" EF
		5 " 51N ^N & W Stope	150	81	73	upper seam.
		5 " 51N Scraper	50	80	71	Boring 100' from duct. Extended
		5 " 53N Scraper	70	81	73.5	work proceeded 12" EF from main
		5 " 53N ^B & E Stope	30	81.5	77	Temp idle. Thro air Vel 5'/min.
		5 " 53N ^N Stope	100	80	75	Boring - Thro air Vel 10'/min.
		5 " 53N ^N Stope	370	81	77.5	Tailmans pos. Thro air Vel 15'/
		5 " 528 Scraper	100	77	66.5	Scraping - Thro air.
		5 " 528 S & W Stope	390	77	74	Scraping - Thro air.
5 " 538 S & E Stope	2	77	72	Boring - Thro air Vel 40'/min.		
4 " 428 S & E Stope	260	76.5	70	Boring & scraping, Sat. 15" EF fr		
					Prep to bore. Dead pocket. No v	
					available.	
					Scraping - Thro air.	
					Boring - Thro air Vel 25'/min.	
					Boring - Thro air Vel 10'/min.	
					Boring - Thro air Vel 35'/min.	

TABULATION OF DUST COUNTS

40. 34

DATE	MINE	PLACE	COUNT	TEMPERATURE		REMARKS
				DRY	WET	
18-11-60	Colonial	4 level 428 S & W Stope	380	78.5	72	Boring adj. thro air boosted by 12" EF
		4 " 428 Scraper	40	80	62.5	Scrapping - Thru air.
18-11-60		Dust Counts in Main Adit Intake.				
		Adjacent No 1 level chute	50			
		Adjacent No 2 level chute	70			
		Adjacent Conveyor Transfer Point	350			
		Adjacent No 4 level chute.	460			
(Signed) M.R. SIMMONS. ASSISTANT INSPECTOR OF MINES.						

TABULATION OF DUST COUNTS

DATE	MINE	PLACE	COUNT	TEMPERATURE		REMARKS
				DRY	WET	
AUSTRALIAN BLUE ASBESTOS LIMITED.						
25-11-60	Colonial	3 level 9020 L.S. Scraper	60	80	66.5	Scraping - Thro air.
		3 " 9020 ^W L.S. Stops	250	77	68.5	Boring 150' from dust. Fan not on & no more bag available. Fan turned on before work proceeded but machinemen not the least interested. 12" EP from level.
		3 " 9050 ^S & W L.S. Stops	290	78	73	Boring. Dead pocket. No vent.
		3 " 9000 L.S. Stops	160	76.5	71	Tailman position. Scraper temp idle. Dead pocket. No vent.
		3 " 9000 L.S. Stops	190	75	71	Boring 150' from thro air. Fan not on and ducting not connected to fan. Fan turned on & ducting connected but still 50' back from face, before work proceeded.
		3 " 9040 L.S. Stops	70	75	72	Boring 100' from manway. Dead pocket No vent. Stops stopped until adequate ventilation installed.
		6 " 6118 Rise	140	76.5	74.5	Boring. Sat. 15" EP from 3000 cfm. (Rise up 20')
		6 " 688 Stops	80	79	74	Boring - Thro air Vel 20'/min.
		6 " 689 Stops	100	77.5	73	Rigging scraper blocks at break thro to 538. Thro air (good flow) boosted by 15" EP from 6 level.
		7 " North Drive	90	80.5	70	Mech bag. Sat. 18" EP from 7000 cfm.
		6 " 658 Stops	70	78	69.5	Boring - Thro air Vel 20'/min.
		6 " " Scraper	70	80.5	66	Scraping - Thro air.
		6 " 629.1 jps	220	79.5	75	Boring 50' from manway. Duct installed but 12" EP out of order. Stops stopped

TABULATION OF DUST COUNTS

A.B. 109

DATE	MINE	PLACE	COUNT	TEMPERATURE		REMARKS
				DRY	WET	
25-11-60	Colonial	5 level 628 Scraper	100	81.5	72.5	Scraping - Thro air by 16" EP installed at 638 Chute.
		6 " 61N Scraper	50	84.5	80.5	Installing rope on scraper. Sat. 15" EP from level.
		6 " North Drive	50	83.5	78	Prep to bore. 18" EP from 7000 cfm. Very poor flow issuing from duct at face.
28-11-60		4 " 42N L.S. Stope	30	77	73	Boring adj. thro air by 15" EP from level.
		4 " 42N L.S. Stope	20	77.5	71.5	Boring adj. thro air by 15" EP from level.
		4 " 41N L.S. Stope	100	79	73.5	Boring. Sat. 12" EP from manway.
		4 " 41N L.S. Stope	260	78	74	Tailmans position 12" EP from upper seam working but ducting not installed.
		4 " 41N L.S. Scraper	40	77.5	74.5	Duct installed before work proceeded.
		4 " 4000 L.S. Stope	40	78.5	74.5	Scraping - Thro air.
		4 " 4000 L.S. Scraper	30	79	74	Prep to bore 50' from duct. Extended against machinemen will before work proceeded 12" EP from manway.
		4 " 428 Scraper	30	83	63	Prep to scrape. Thro air.
		4 " 428 S & E Stope	200	81.5	85.5	Scraping - Thro air.
		5 " 52N S & W Stope	130	78	74	Boring. Sat. 16" EP from stope brattice
		5 " 52N N & W Stope	90	80	72	Boring - Thro air Vel 5'/min.
		5 " 53N Stope	110	80	75.5	Boring - Thro air Vel 15'/min.
		5 " 528 S & W Stope	150	77	74	Scraping. Tailmans position 50' from duct. Extended before work proceeded 15" EP from manway.
						Scraping - Thro air Vel. 25'/min.

2474431-2

A. J. 390

DATE	MINE	PLACE	COUNT	TEMPERATURE		REMARKS
				DRY	WET	
28-11-60	Colonial	5 level 538 ⁸ & E Stope	100	77.5	72	Spraying - Thru air Vel 10'/min.
<u>NOTE:</u> All the above samples were taken during afternoon shift. (4.30 p.m. - 10.00 p.m.)						
(Signed) M. R. SIMMONS, ASSISTANT INSPECTOR OF MINES.						

TABULATION OF DUST COUNTS

DATE	MINE	PLACE	COUNT	TEMPERATURE		REMARKS
				DAY	WET	
AUSTRALIAN BLUE ASBESTOS LIMITED.						
29-11-60	Surface Plant.	Transfer chute from mine.	900			12" EF blowing from outside
	Colonial	Picking station.	360			5 men employed here.
		Secondary crusher switch board	100			
		Screens floor.	480			
		Entrance to Kubits	360			Men pass this point regularly.
		Cyclones switchboard	600			
		Central Switchboard	420			
		Screens area	440			
		North Bagging Station	470			
		South Bagging Station	480			
				(Signed) M.R. SIMMONS.		
				ASSISTANT INSPECTOR OF MINES.		

TABULATION OF DUST COUNTS

DATE	MINE	PLACE	COUNT	TEMPERATURE		REMARKS
				DRY	WET	
NORTH WEST MINING NO LIABILITY.						
23-11-60	Blue Spec	4 level No 6 Mill Hole	80	78	73	Mesh bag - Thro air 800 cfm.
		4 " U.M. Stope	450	81.5	77	Boring - Thro air 800 cfm.
		Downcast airflow measured at No. 1 level = 2,000 cumins. Exhaust " " Surface = 500 cumins.				
		The exhaust measurement would be unreliable because of leakage and inaccessibility of surface exhaust point. Approx. 500 cumins are re-circulating at the 2 and 3 levels therefore the actual amount of fresh air passing thro' the workings would be approx. 1500 cumins.				
		(S' ved) M.E. SIMMONS, ASSISTANT INSPECTOR OF MINES,				