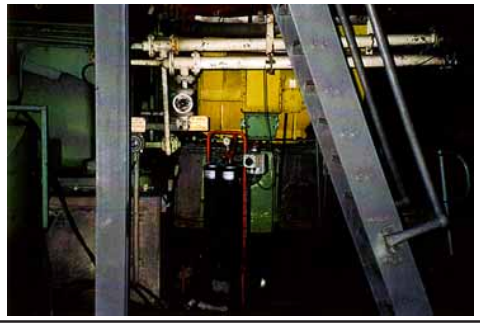
Gearbox Oil Filtration : Wallerang Power Station

Wallerawang Power Station

Wallerawang Power Station were having problems in the coal mill gearboxes in the power station, the issue being the ingress of coal dust. Silicon was finding its way into the mill's lube system, raising viscosity and consequently the operating temperature of the mill oil.

Sample 21592 shows silicon at 30ppm, iron at 13ppm, aluminium at 5ppm and viscosity at 349 cST. Sample 21593 shows silicon levels have been reduced by 50% and iron by 53%. This sample was taken after one pass through the buggy. Sample 21933, taken 2 weeks later shows silicon at 7ppm, a reduction of 76%, iron at 4ppm a reduction of 69%, aluminium at less then 1ppm a reduction of 80% and viscosity is back within specification at 320 cST.

Sample 23947 shows that after 4 months the elements were due for a change and levels were still within specification. Wallerawang purchased the buggy and have received normal oil reports on all 7 mills for the first time.



LUBE TECH

Lubetech Pty Ltd

Oil Analysis Report

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Client	Filter Technology Australia Pty Ltd / New South Wales	Site	Walerawang
Contact	Phillip Maheine	Unit ID/Name	OAO96BR / Walerawang P/Station
Address		Manufacture/Model	
Telephone	(02) 4932 9998	Origin	Tank
Fax	(02) 4932 9997	Fuel/Oil Type	Unigear 320

Diagnosis:
Oil and wear condition appear satisfactory.

OK

	Sample Number	23947	21933	21593	21592				Indicative
	Date	05/12/2000	14/08/2000	27/07/2000	26/07/2000				Levels
	Total Hours/Km								
	Hours/Km on Oil								
	Oil Changed	NO	NO	NO	NO				
	Oil Added								
Condition Tests	Fuel Dilution (%)								
	WT Solids (%)								
	Volume Water (%)	ND	ND	ND	ND				
	Water PPM								
	Viscosity @ 40C (cST)	319	320	347	349				
	TAN (mg/KOH/g)	0.28	0.60	0.52	0.53				
	TBN (mg/KOH/g)								
	ApH								
	PQ90 Index	+3							
Wear Metals	Aluminum (Al)	4	< 1	1	5				
	Silicon (Si)	11	7	15	30				
	Tin (Sn)	<1	1	1	0				
	Iron (Fe)	6	4	6	13				
	Lead (Pb)	<1	< 1	< 1	< 1				
	Copper (Cu)	5	3	4	4				
	Chromium (Cr)	<1	< 1	< 1	< 1				
	Sodium (Na)	<1	0	0	0				
	Zinc (Zn)								
	Others								