



**FILTER
TECHNOLOGY**

cleaner fluids mean better business

CASE STUDY

Quarrying

Case No : 7 - 6 - 8

Lube System, Jaques Crusher : Boral, Peats Ridge

Boral - Peats Ridge - Jaques 4F TX Crusher

Boral Peats Ridge were approached by Filter Technology Australia in August 1999 to evaluate a JQ340 lube system on their Jaques TX Cone Crusher, the aim being to lower contaminants, extend oil drain periods and component life.



Oil drains were typically done on a six or twelve monthly basis depending on the rate of silicon ingress.



At the time of installation the oil was 80 hours old and was grey in appearance.

The system has now been installed for 31/2 years and serviced on a three monthly basis. Silicon ingress that was an issue when the system was installed has been controlled and sample 39665 done on 10/02/03 finds all wear metals at acceptable levels.



Lubetech Pty Ltd

Oil Analysis Report

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Site Peats Ridge

Unit ID/Name **Boral - Peats Ridge / Boral Quarry**

Manufacture/Model Jaques / TX

Origin **Crusher - Ref# OAO27EB**

Fuel/Oil Type Omala 220

Diagnosis:

Oil and wear condition appear satisfactory. Trend is stable.
Continue to monitor.



Sample Number	39665	38392	34419	32292	30928	29104	26742	Indicative Levels
Date	10/02/2003	28/11/2002	03/06/2002	01/03/2002	03/12/2001	27/08/2001	10/05/2001	
Total Hours/Km								
Hours/Km on Oil								
Oil Changed	NO	NO	NO	NO	NO	NO	NO	
Oil Added								
Fuel Dilution (%)								
WT Solids (%)								
Volume Water (%)	ND	ND	ND	ND	ND	ND	ND	0.1
Water PPM								
Viscosity @ 40C (cST)	209	216	190	203	164	230	221	>10%
TAN (mg/KOH/g)	0.99	0.68	0.72	0.81	0.26	0.78	0.89	
TBN (mg/KOH/g)								
ApH								
PO90 Index							+1	
Aluminum (Al)	1	1	<1	<1	5	<1	<1	15
Silicon (Si)	2	<1	1	1	14	10	1	40
Tin (Sn)	4	2	<1	6	6	<1	5	20
Iron (Fe)	6	6	4	3	7	4	3	160
Lead (Pb)	6	7	4	5	23	4	5	20
Copper (Cu)	19	19	17	18	64	17	24	160
Chromium (Cr)	1	<1	<1	<1	<1	2	<1	10
Sodium (Na)	4	4	1	<1	8	3	<1	80
Zinc (Zn)	14	14	5	6				
Others								
ISO4406	20/17	20/16	23/21	24/21				19/16
Grav-Metric								
>2 micron	23150	14417	79854	306249				
>5 micron	8565	5332	71523	113203				
>15 micron	915	570	14236	12083				
Contamination		Elevated	Very High	High				