RS Monition
Asset Reliability and
Condition Monitoring

AN OIL LABORATORY REPORT

ON Melton

FOR

REPORT DATE: 28/03/2025

FOR CLARIFICATION OF REPORT CONTENT - PLEASE TELEPHONE OR EMAIL RS MONITION, ADDRESSING YOUR QUESTIONS TO:

oillab@rs-components.com

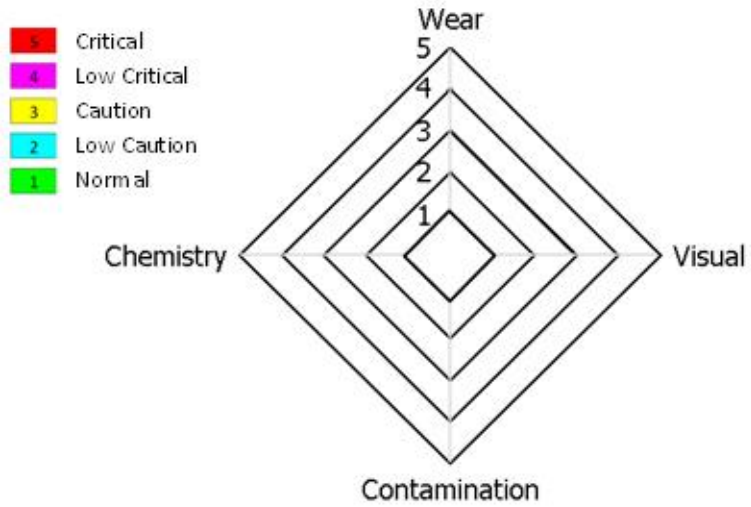
REPORT REF: 26066

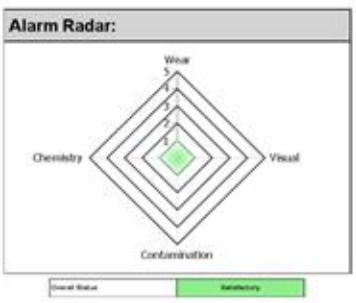
RS Monition Oil Report Introduction

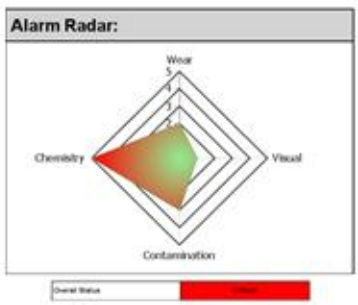
Oil samples have been received recently from your facility and the results of the analysis are presented in the following report. The contents of this report will highlight items of equipment with potential problems and equipment that requires repair work.

Quadvector Plot Data:

The Quadvector plot combines multiple test results into one graph. It consists of four mutually perpendicular axes extending from a common origin. The results of each oil test are categorised to fit into four evaluation areas: Wear, Contamination, Visual and Chemistry with each axis representing one of these categories. The plot reports oil condition in each category in a range from "Normal" to "Low Caution" to "Caution" to "Low Critical" to "Critical."







RS Monition Oil Colour Scheme:

A key to the colour coding in relation to condition level is located directly to the left of the Quadvector plot. Each out of specification result is colour coded individually, with the highest element in alarm determining the status for each evaluation area. The highest evaluation area in alarm then determines the overall status of the oil sample.

ESFM Humberside Ltd

RS Monition
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OIL ANALYSIS TEST CERTIFICATE

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Plant Name:	**Melton**	Area:	**Melton**
Component Name:	**Engine**	Machine Name:	**LC70 CVS**

Lab Comment:

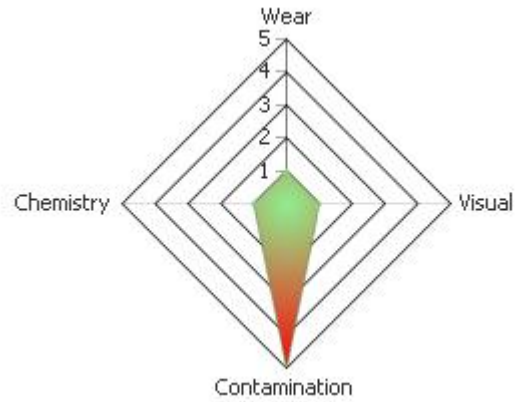
Note level of Water. Viscosity at 100°C matches SAE xW30.

There is evidence of an amount of water in the lubricant. There are no indications of any coolant ingress, potassium and sodium are not elevated. The water may be condensate related.

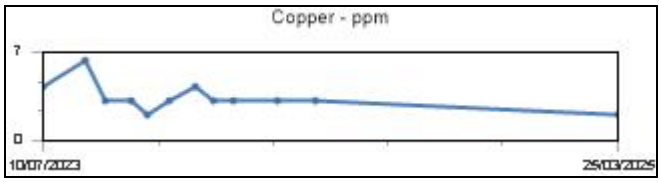
An oil change is recommended due to the level of water contamination.

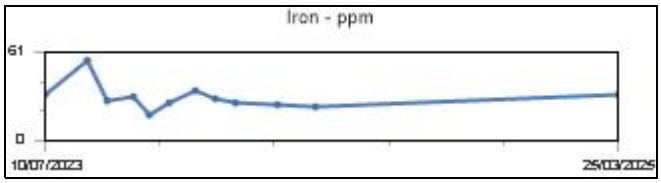
Overall Status	**Critical**

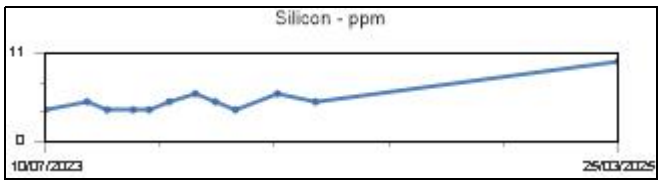
Alarm Radar:

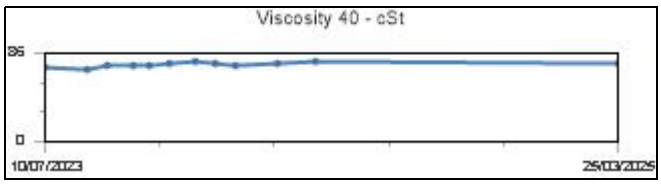


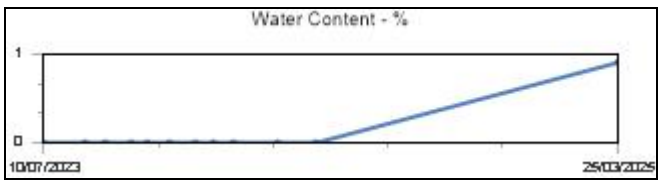
Sample	**Current**	Historical			
Ref Oil	Crankcase\Multigrade				
Sample Date	**25/03/2025**	30/04/2024	20/03/2024	02/02/2024	11/01/2024
Oil Hours					
Unit Hours	**139166**	132685	127379	122502	117183
Sample #	**26066**	23801	23545	23267	23135
Lab #	**2**	2	1	1	1
Analyst		Oil	Oil	Oil	Oil
Wear					
Aluminium - ppm	**5**	5	6	5	7
Antimony - ppm	**< 1**	< 1	< 1	< 1	< 1
Cadmium - ppm	**< 1**	< 1	< 1	< 1	< 1
Chromium - ppm	**1**	1	1	1	1
Copper - ppm	**2**	3	3	3	3
Iron - ppm	**32**	24	25	26	29
Lead - ppm	**1**	< 1	< 1	< 1	< 1
Nickel - ppm	**1**	< 1	1	< 1	< 1
Silver - ppm	**< 1**	< 1	< 1	< 1	< 1
Tin - ppm	**1**	< 1	1	1	1
Titanium - ppm	**1**	1	2	1	1
Vanadium - ppm	**< 1**	< 1	< 1	< 1	< 1
Manganese - ppm	**1**	1	1	1	1
FW - idx	**0**	5	0	0	0
Chemistry					
Barium - ppm	**< 1**	< 1	< 1	< 1	< 1
Boron - ppm	**191**	136	97	63	78
Calcium - ppm	**1260**	1835	1458	1650	1798
Magnesium - ppm	**414**	187	145	166	189
Molybdenum - ppm	**10**	35	29	32	35
Phosphorus - ppm	**747**	744	584	671	750
Potassium - ppm	**2**	2	13	< 1	1
Zinc - ppm	**926**	921	737	825	896
Viscosity 40 - cSt	**75.6**	78.4	75.7	75.2	75.9
Viscosity 100 - cSt	**12.1**	12.9	12.9	12.2	12.3
Base No. - mg KOH/g	**6.2**	6.9	4.5	4.6	5.9
Sulfur - ppm	**2412**	2528	2136	2389	2655
Contamination					
Aluminium - ppm	**5**	5	6	5	7
Silicon - ppm	**10**	5	6	4	5
Sodium - ppm	**6**	11	52	1	1
Water Content - %	**0.75**	< 0.02	< 0.02	< 0.02	< 0.02
Soot - %	**0.5**	0.8	< 0.1	1.2	1
Visual					
Visual - idx					











Key	Satisfactory	Early Caution	Caution	Warning	Action