

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR A934C 053804-1007 - Diesel Engine

Sample No: LHMC85073

Oil Type: MOBIL DELVAC 1300 SUPER15W40



SAMPLE INFORMATION

Sample Number	LHMC85073	LHMC79171	LHMC84577	LHMC84549
Sample Date	27 Jun 2023	24 Sep 2019	12 May 2016	05 Mar 2015
Machine Hours	25586	18315	1165	5770
Oil Hours	300	181	300	388
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ATTENTION	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.4	9.9	14.81	14.47
Base Number (BN)	mg KOH/g	9.9	---	---	---
Oxidation (PA)	%	82	71	44	60

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.



CONTAMINATION

Soot %	%	0.7	0.3	0.2	0.4
Nitration (PA)	%	67	37	58	58
Sulfation (PA)	%	64	64	50	53
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	1.4	<1.0	<1.0
Silicon	ppm	8	12	12	10
Sodium	ppm	2	2	12	5
Potassium	ppm	2	<1	1	5



WEAR METALS

Iron	ppm	4	5	11	9
Copper	ppm	<1	<1	10	2
Lead	ppm	<1	0	1	0
Tin	ppm	<1	0	0	0
Aluminum	ppm	0	<1	5	1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	41	16	48	46
Nickel	ppm	0	0	<1	<1
Titanium	ppm	<1	0	<1	<1
Silver	ppm	4	<1	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	0



ADDITIVES

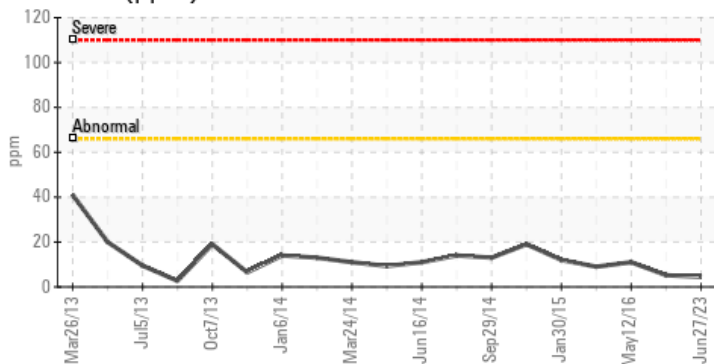
Calcium	ppm	1761	716	1382	1371
Magnesium	ppm	527	194	787	865
Zinc	ppm	922	351	1057	1117
Phosphorus	ppm	749	522	889	897
Barium	ppm	0	0	<1	0
Boron	ppm	50	18	22	31

Depot: PACTOM
 Unique No: 10546509
 Signed: Sean Felton
 Report Date: 07 Jul 2023

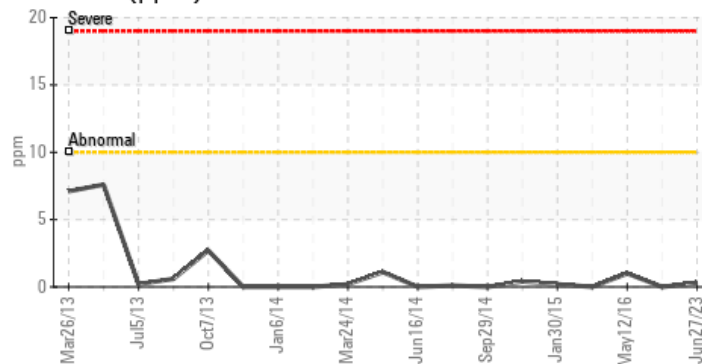


GRAPHS

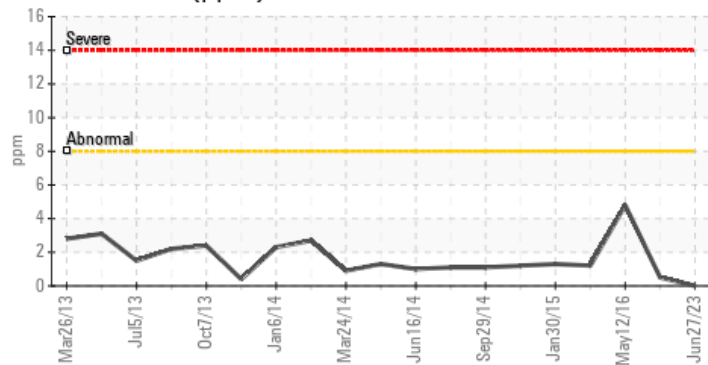
Iron (ppm)



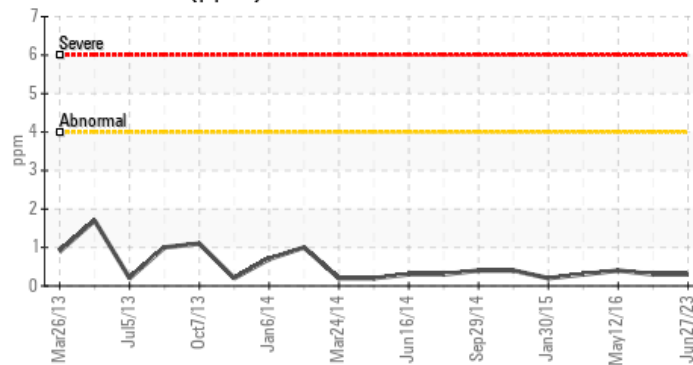
Lead (ppm)



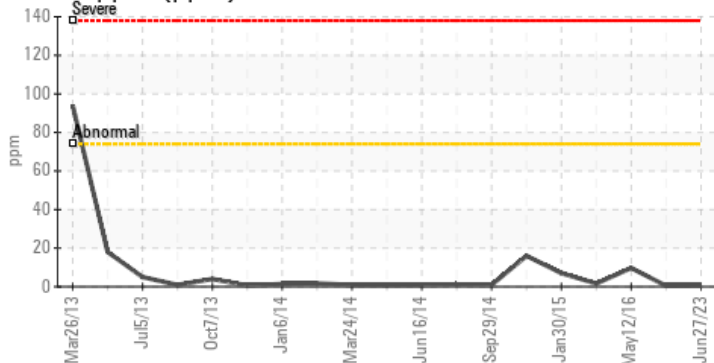
Aluminum (ppm)



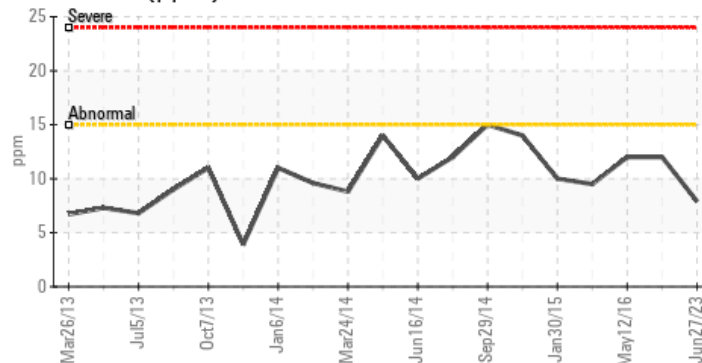
Chromium (ppm)



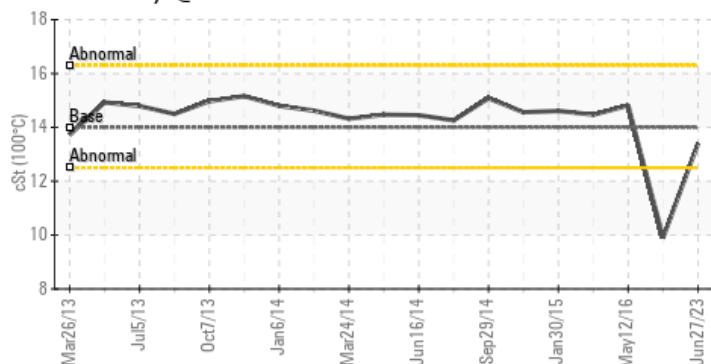
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number

