

LIEBHERR

CONSTRUCTION EQUIPMENT



113718-1216 - Diesel Engine

Sample No: LH

Oil Type: PETRO CANADA DURON UHP 5W30



SAMPLE INFORMATION

Sample Number	LH	LH0155065	LH0234888	LH
Sample Date	30 Oct 2023	23 Feb 2023	22 Jul 2022	07 Feb 2022
Machine Hours	5676	4729	4000	0
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	ABNORMAL	NORMAL

American Iron and Metal

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Ottawa, ON
CA K1B 3V6
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OIL CONDITION

Visc @ 100°C	cSt	12.9	12.3	11.6	12.7
Oxidation (PA)	%	66	69	79	62



CONTAMINATION

Soot %	%	0	0	0	0
Nitration (PA)	%	75	77	83	65
Sulfation (PA)	%	53	59	59	54
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	1.2	<1.0
Silicon	ppm	6	7	7	6
Sodium	ppm	2	2	4	1
Potassium	ppm	0	<1	3	4

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 condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	3	4	4	4
Copper	ppm	2	2	2	2
Lead	ppm	1	1	<1	<1
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	1	1	2	2
Chromium	ppm	0	0	0	<1
Molybdenum	ppm	57	59	58	58
Nickel	ppm	<1	0	0	0
Titanium	ppm	0	<1	<1	0
Silver	ppm	<1	0	0	<1
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

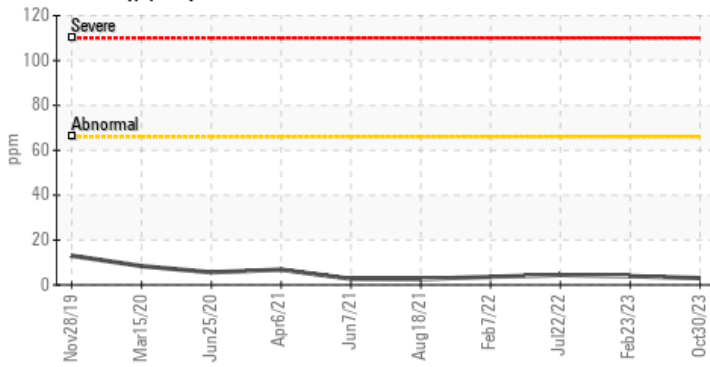
Calcium	ppm	998	1128	872	1038
Magnesium	ppm	952	997	1117	1015
Zinc	ppm	1196	1204	1252	1213
Phosphorus	ppm	996	1104	1019	1066
Barium	ppm	<1	0	0	<1
Boron	ppm	2	2	26	2

Depot: BAKOTT
Unique No: 5671647
Signed: Wes Davis
Report Date: 07 Nov 2023

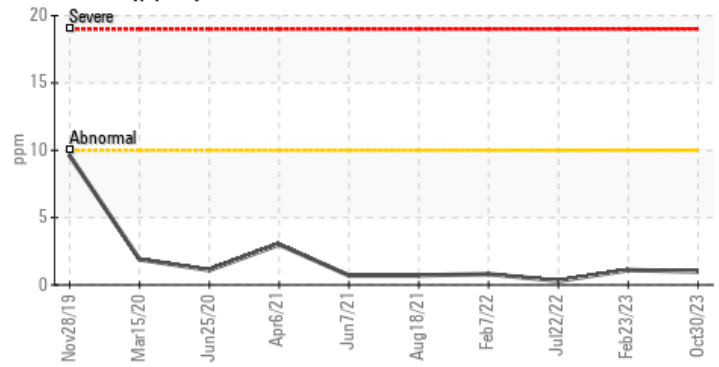


GRAPHS

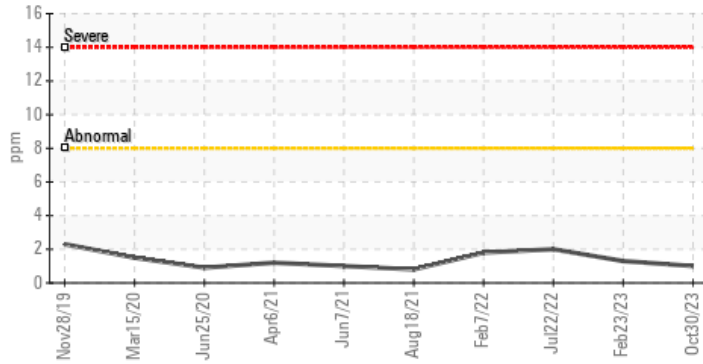
Iron (ppm)



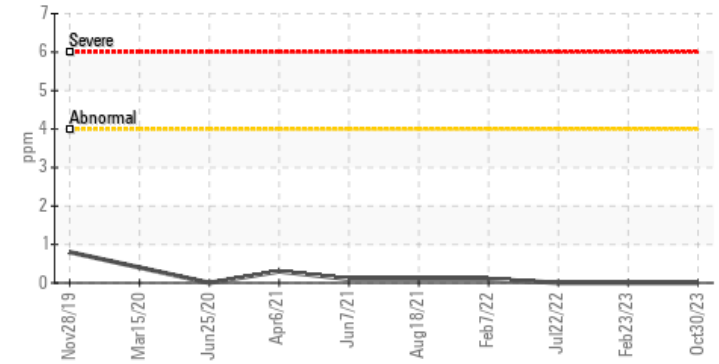
Lead (ppm)



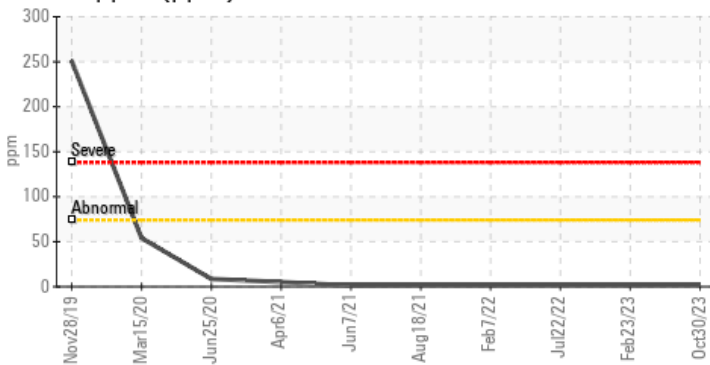
Aluminum (ppm)



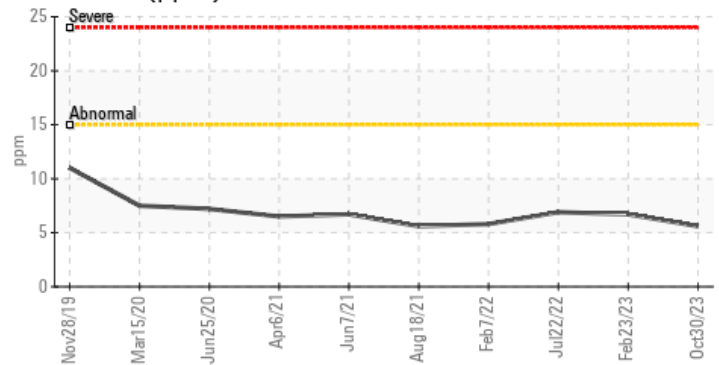
Chromium (ppm)



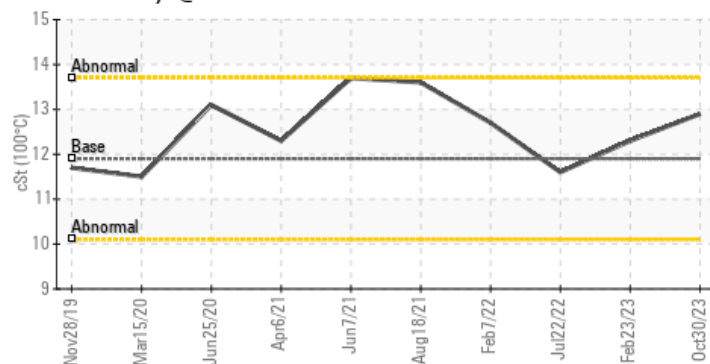
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Soot %

