

LIEBHERR

CONSTRUCTION EQUIPMENT



096750-1204 - Diesel Engine

Sample No: LH0274880

Oil Type: PETRO CANADA 10W40



SAMPLE INFORMATION

Sample Number	LH0274880	LH0216229	LH0251714	LH0227487
Sample Date	31 Oct 2023	02 May 2023	30 Jan 2023	14 Oct 2022
Machine Hours	10469	9977	9461	8939
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ABNORMAL	ABNORMAL	ABNORMAL

American Iron and Metal

120 Bentley Avenue

Ottawa, ON

CA K2E 6T9

Contact: Yvon Lalonde



OIL CONDITION

Visc @ 100°C	cSt	14.6	14.5	14.4	13.1
Oxidation (PA)	%	66	62	63	78

T: (819)230-7247

F:



CONTAMINATION

Soot %	%	1.3	1.1	1.3	1.8
Nitration (PA)	%	87	82	91	145
Sulfation (PA)	%	60	58	65	85
Glycol	%	0.0	0.0	0.0	0.0
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	8	16	42
Sodium	ppm	37	129	506	2328
Potassium	ppm	21	76	316	1260

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. Test for glycol is negative. 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	30	27	35	32
Copper	ppm	2	2	4	7
Lead	ppm	<1	<1	2	6
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	9	11	18	15
Chromium	ppm	<1	<1	1	1
Molybdenum	ppm	68	69	93	233
Nickel	ppm	<1	<1	<1	0
Titanium	ppm	0	2	11	<1
Silver	ppm	<1	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	<1	0



ADDITIVES

Calcium	ppm	1159	1135	1179	846
Magnesium	ppm	1060	978	925	1007
Zinc	ppm	1340	1234	1212	1158
Phosphorus	ppm	1101	1112	1086	970
Barium	ppm	<1	0	0	<1
Boron	ppm	1	2	8	28

Depot: AME120OTT

Unique No: 5670915

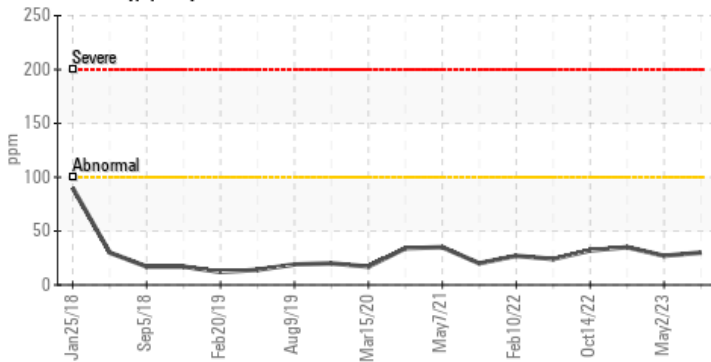
Signed: Wes Davis

Report Date: 03 Nov 2023

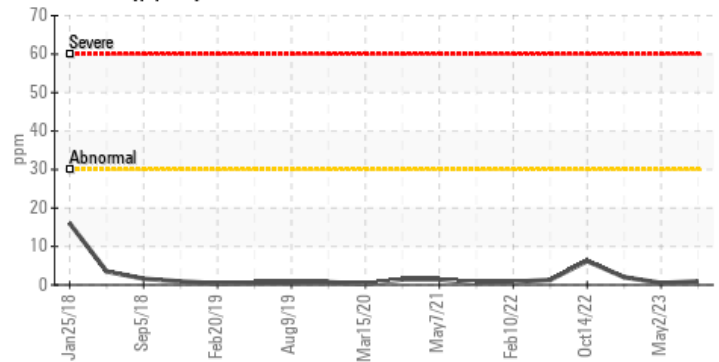


GRAPHS

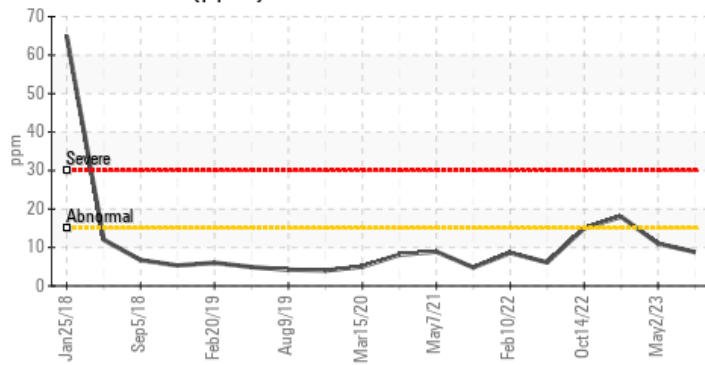
Iron (ppm)



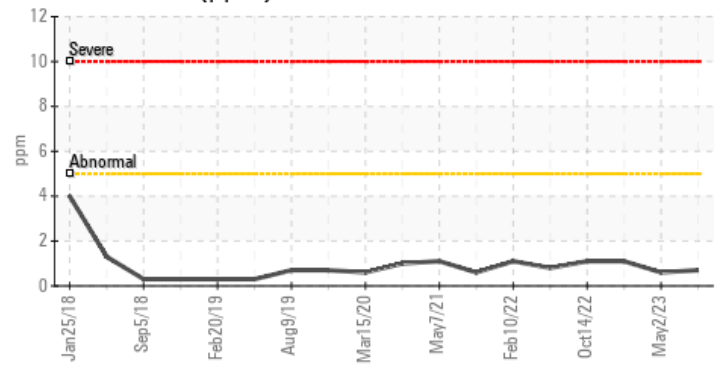
Lead (ppm)



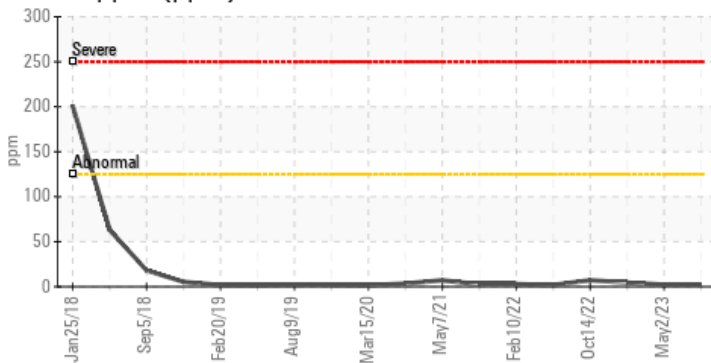
Aluminum (ppm)



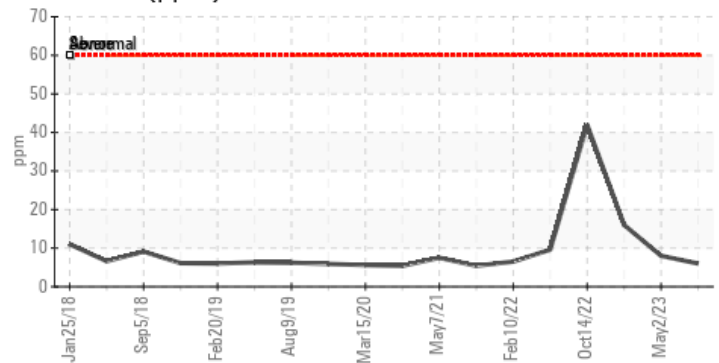
Chromium (ppm)



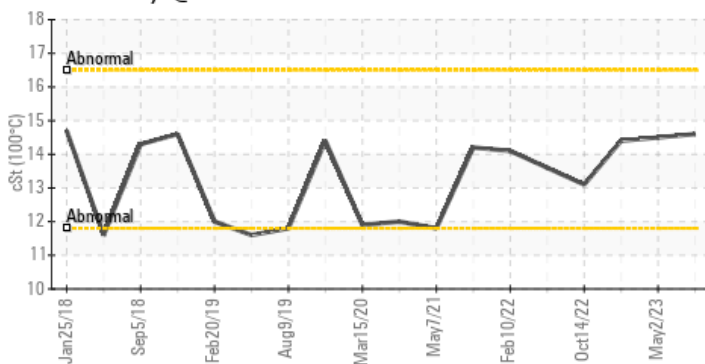
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Soot %

