



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR L580 040987-1170
Component
Diesel Engine
Fluid
PETRO CANADA 10W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0276192	LH0252142	LH0234745
Sample Date		Client Info		20 Mar 2024	16 Jan 2024	11 Jul 2023
Machine Age	hrs	Client Info		10426	10169	9082
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	9	14	17
Chromium	ppm	ASTM D5185(m)	>5	0	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>15	1	2	2
Lead	ppm	ASTM D5185(m)	>30	0	<1	2
Copper	ppm	ASTM D5185(m)	>125	1	2	9
Tin	ppm	ASTM D5185(m)	>5	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

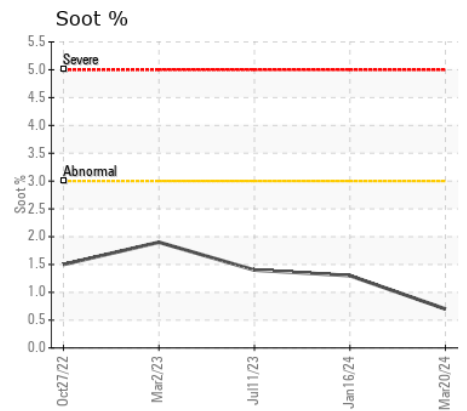
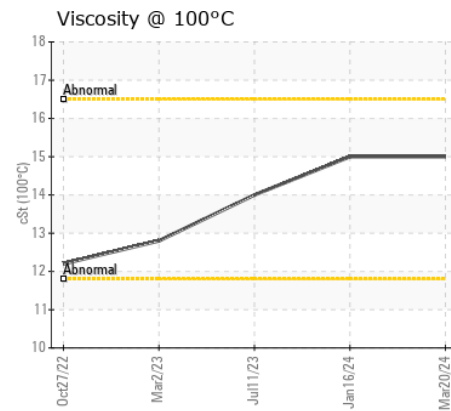
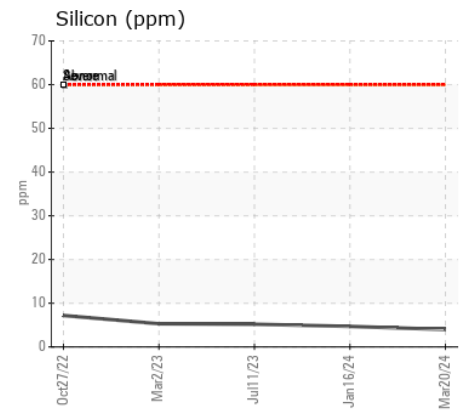
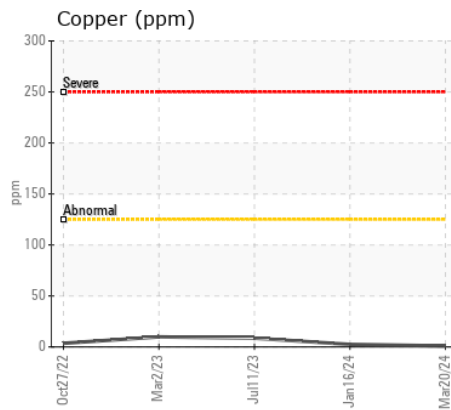
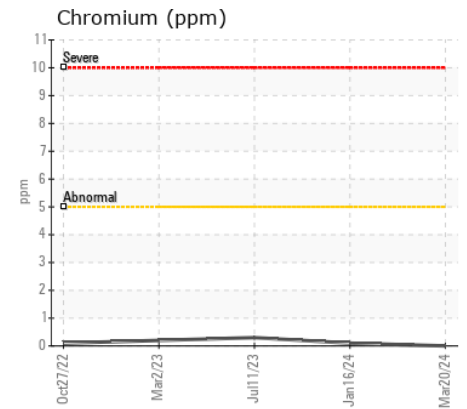
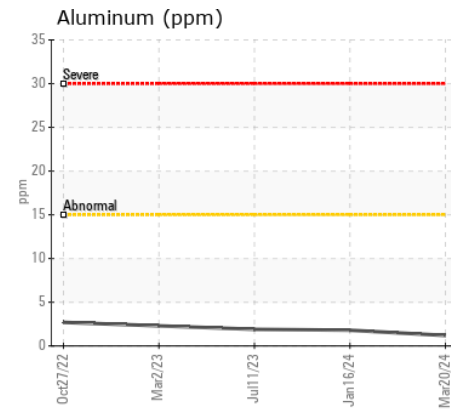
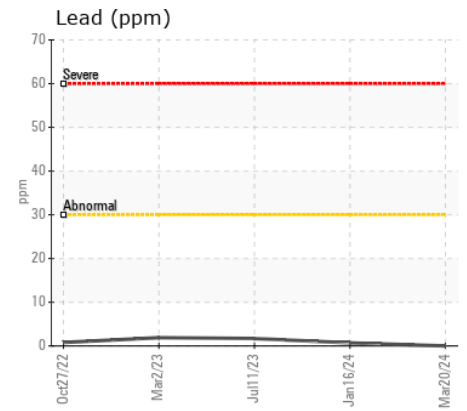
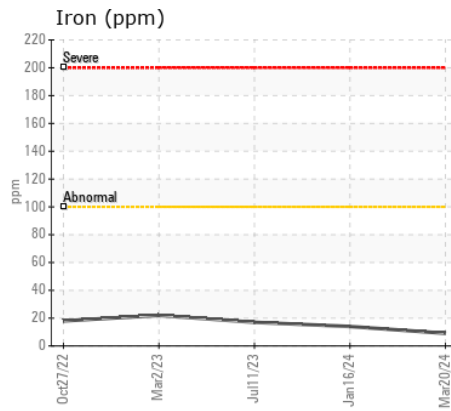
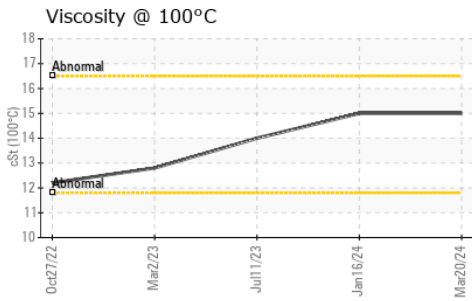
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	4	5	5
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.7	1.3	1.4
Nitration	Abs/cm	ASTM D7624*	>20	6.4	8.1	8.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.9	21.1	21.3
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)	>20	2	2	2
Boron	ppm	ASTM D5185(m)		1	<1	2
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		59	59	59
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)		958	966	990
Calcium	ppm	ASTM D5185(m)		1038	1074	1065
Phosphorus	ppm	ASTM D5185(m)		979	1013	1074
Zinc	ppm	ASTM D5185(m)		1159	1188	1226
Sulfur	ppm	ASTM D5185(m)		2686	2687	2541
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.7	14.7	14.4
Visc @ 100°C	cSt	ASTM D7279(m)		15.0	15.0	14.0



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0276192
Lab Number : 02625145
Unique Number : 5750264
Test Package : MOB 1
Received : 28 Mar 2024
Tested : 28 Mar 2024
Diagnosed : 28 Mar 2024 - Wes Davis

THOMAS CAVANAGH CONSTRUCTION LTD
 RR # 2, 9094 CAVANAGH ROAD
 ASHTON, ON
 CA K0A 1B0
 Contact: Keith

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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