



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH50M 112359-1216
Component
Diesel Engine
Fluid
PETRO CANADA SUPREME 5W30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0269699	LH0224996	LH0221787
Sample Date		Client Info		03 Jan 2024	24 May 2023	02 Nov 2022
Machine Age	hrs	Client Info		7308	6006	5107
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	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	10	6	4
Chromium	ppm	ASTM D5185(m)	>5	<1	0	0
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	0
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>15	3	2	2
Lead	ppm	ASTM D5185(m)	>30	2	<1	2
Copper	ppm	ASTM D5185(m)	>125	5	3	2
Tin	ppm	ASTM D5185(m)	>5	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

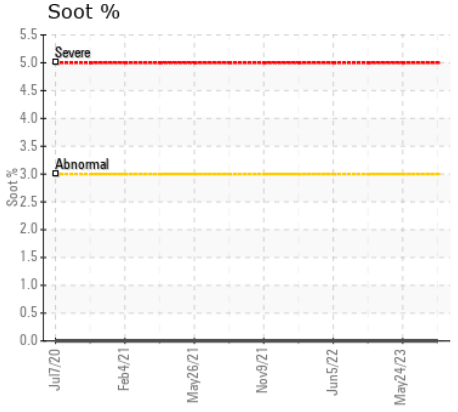
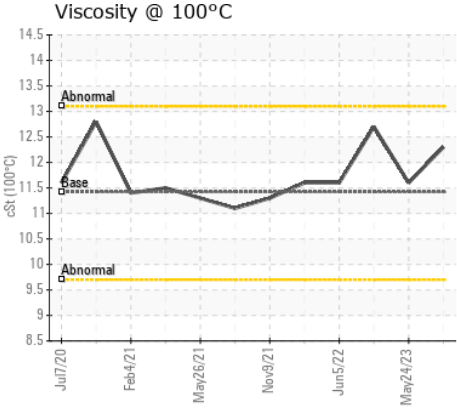
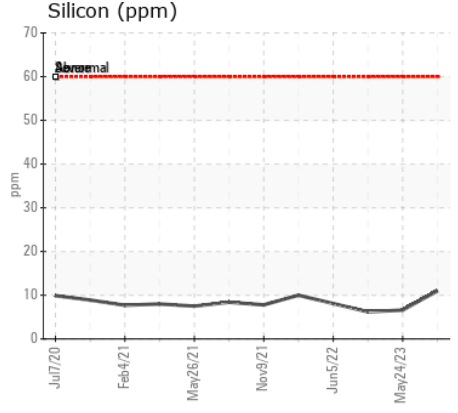
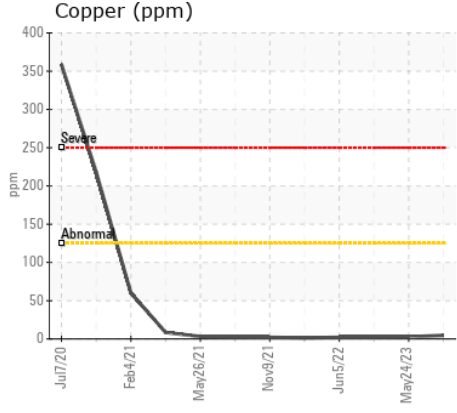
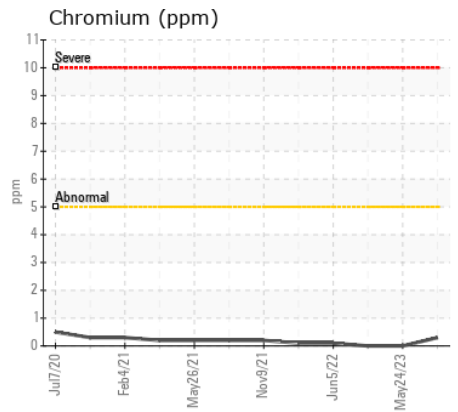
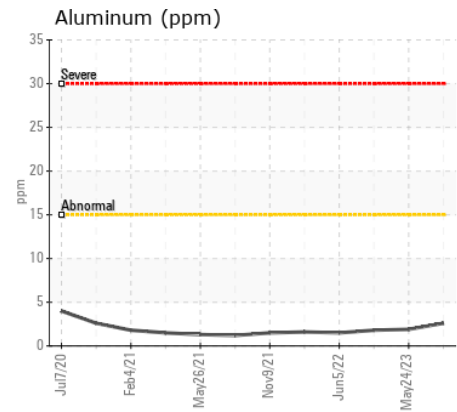
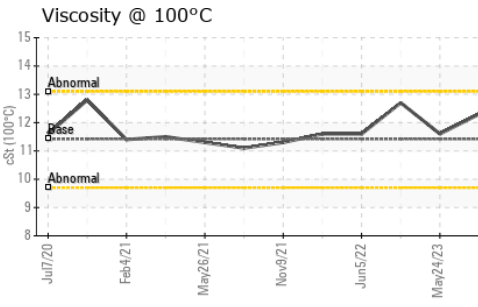
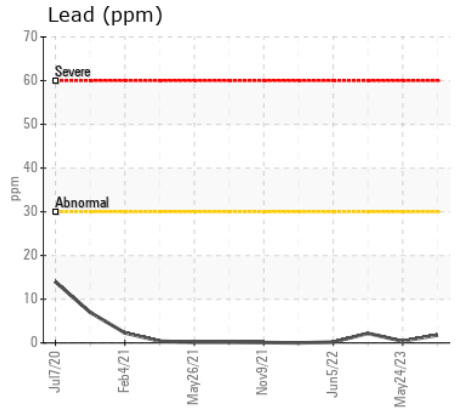
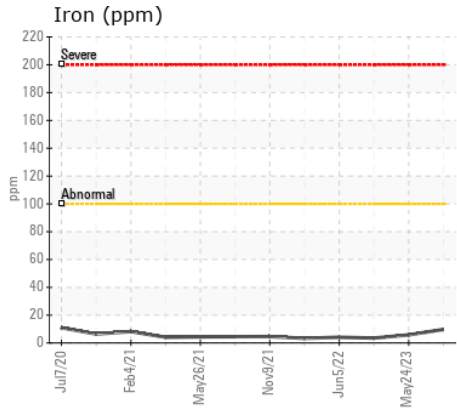
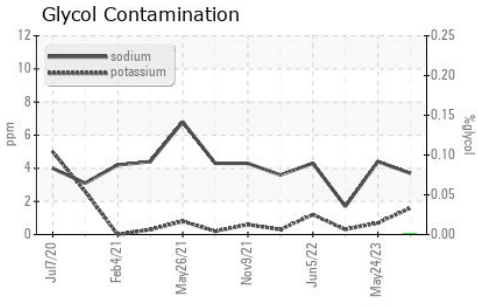
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	11	7	6
Potassium	ppm	ASTM D5185(m)	>20	2	<1	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	11.9	10.4	9.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.4	22.3	20.4
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)		4	4	2
Boron	ppm	ASTM D5185(m)	186	18	26	4
Barium	ppm	ASTM D5185(m)	<1	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	79	53	60	57
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	578	998	1101	963
Calcium	ppm	ASTM D5185(m)	1002	965	881	1010
Phosphorus	ppm	ASTM D5185(m)	745	970	1089	1060
Zinc	ppm	ASTM D5185(m)	837	1190	1211	1178
Sulfur	ppm	ASTM D5185(m)	2502	2722	2765	2608
Oxidation	Abs/.1mm	ASTM D7414*	>25	25.6	22.2	18.2
Visc @ 100°C	cSt	ASTM D7279(m)	11.42	12.3	11.6	12.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0269699 **Received** : 08 Jan 2024
Lab Number : 02606915 **Diagnosed** : 09 Jan 2024
Unique Number : 5708001 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol)

RICHMOND STEEL
 12707 170 STREET
 EDMONTON, AB
 CA T5V 1L9
 Contact: Sandor Arguello

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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