



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR L586 068244
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		LH0224308	LH0278516	LH
Sample Date		Client Info		21 Feb 2024	22 Dec 2023	15 Sep 2023
Machine Age	hrs	Client Info		8026	7142	0
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	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

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

CONTAMINATION

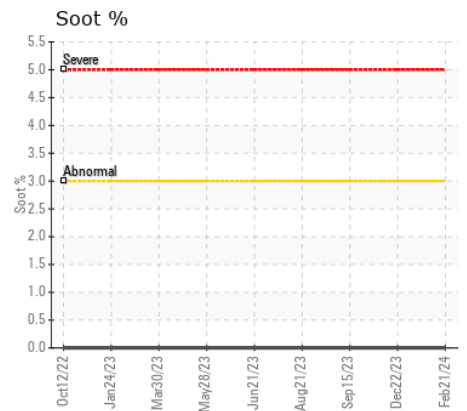
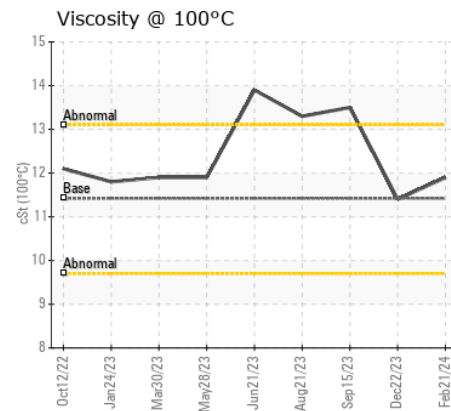
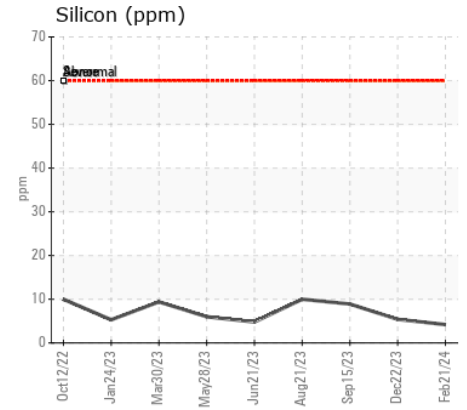
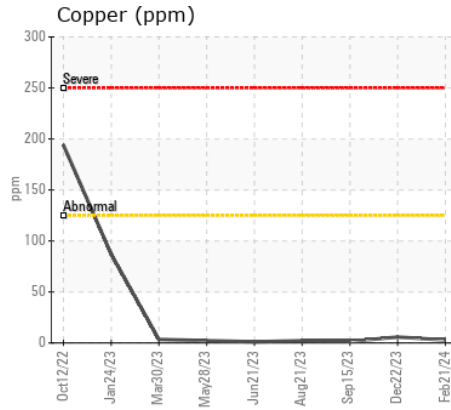
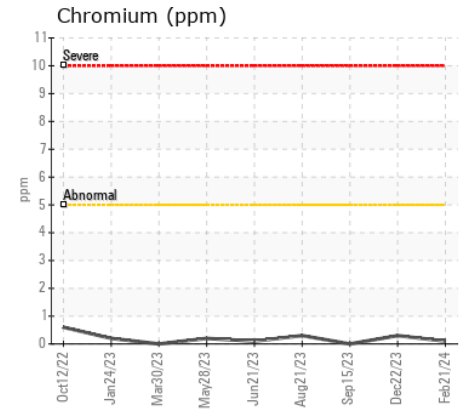
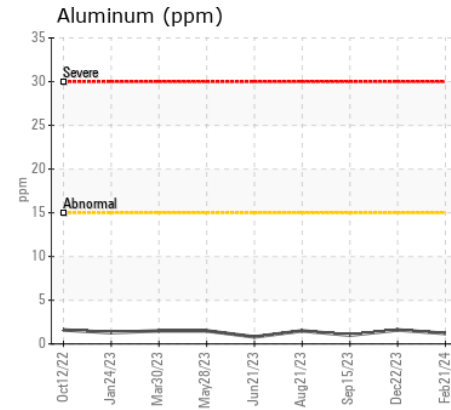
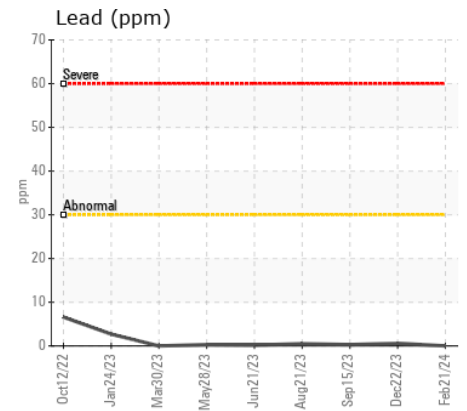
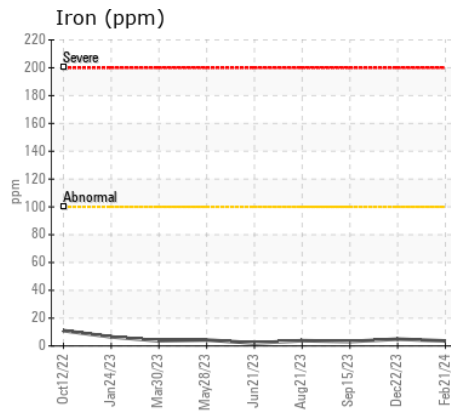
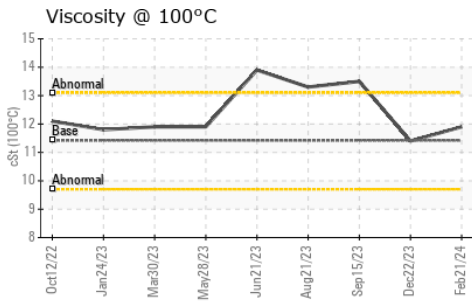
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	4	5	9
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	0	0
Nitration	Abs/cm	ASTM D7624*	>20	7.7	9.9	6.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.9	19.4	18.2
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	3	2
Boron	ppm	ASTM D5185(m)	186	27	23	2
Barium	ppm	ASTM D5185(m)	<1	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	79	57	57	57
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	578	1050	1042	922
Calcium	ppm	ASTM D5185(m)	1002	870	867	1035
Phosphorus	ppm	ASTM D5185(m)	745	1005	1031	987
Zinc	ppm	ASTM D5185(m)	837	1179	1168	1159
Sulfur	ppm	ASTM D5185(m)	2502	2829	3161	2530
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.6	19.6	14.8
Visc @ 100°C	cSt	ASTM D7279(m)	11.42	11.9	11.4	13.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0224308
Lab Number : 02619516
Unique Number : 5736626
Test Package : MOB 1
Received : 04 Mar 2024
Tested : 04 Mar 2024
Diagnosed : 04 Mar 2024 - Wes Davis

Gerdau - Mandak Metal Processors Ltd.,
 1 Railway St., P.O. Box 334
 Selkirk, MB
 CA R1A 2B3
 Contact: Santiago Giraldo
 santiago.giraldo@gerdau.com
 T:
 F: (204)482-8241

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.