



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
045705-1491
Component
Diesel Engine
Fluid
PETRO CANADA SUPREME 5W30 (44 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0288338	LH0281316	LH0265685
Sample Date		Client Info		07 May 2024	14 Dec 2023	01 Aug 2023
Machine Age	hrs	Client Info		5888	5435	4919
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	ABNORMAL

WEAR

All component wear rates are normal.

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

CONTAMINATION

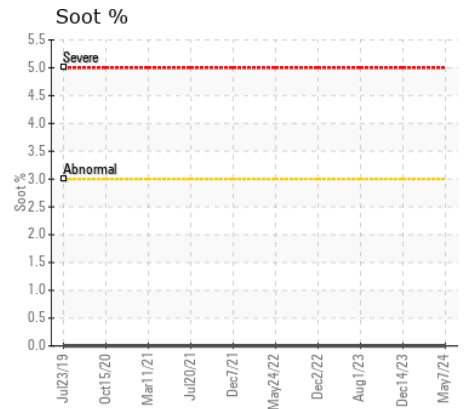
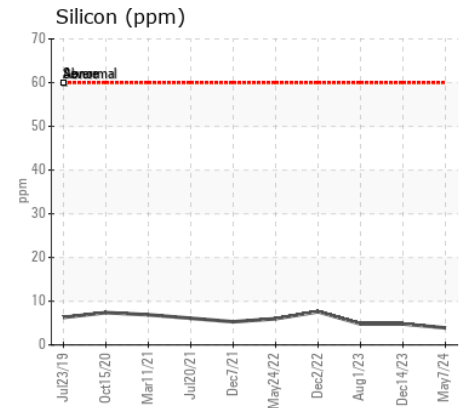
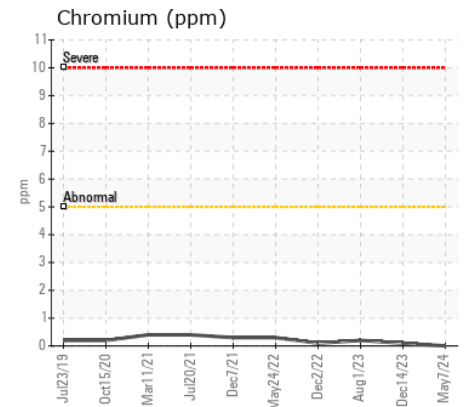
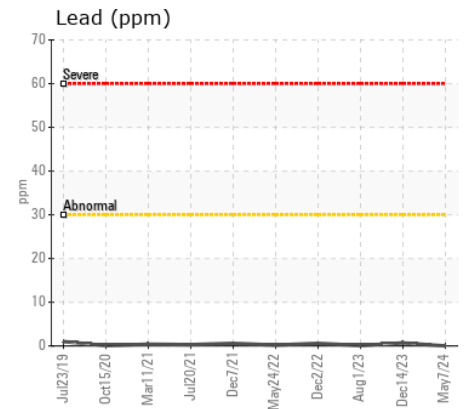
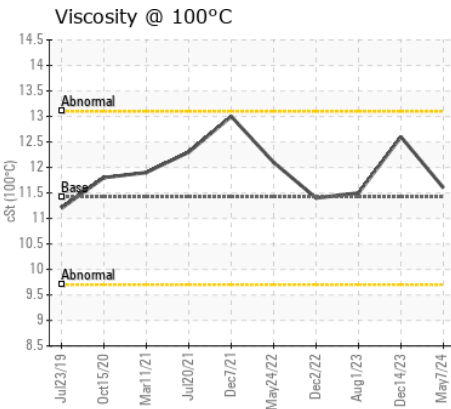
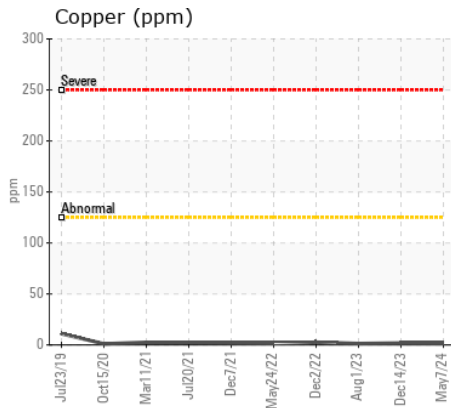
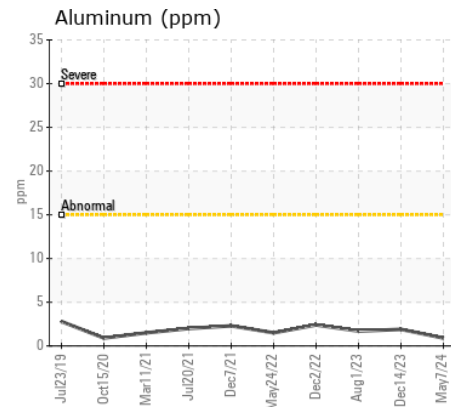
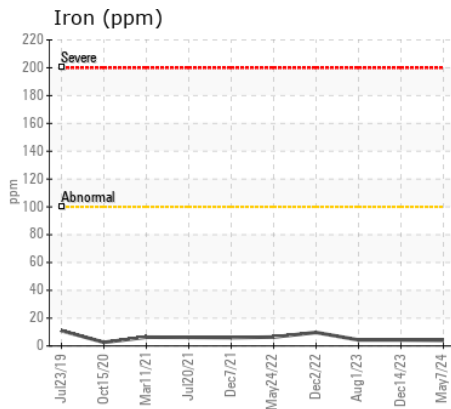
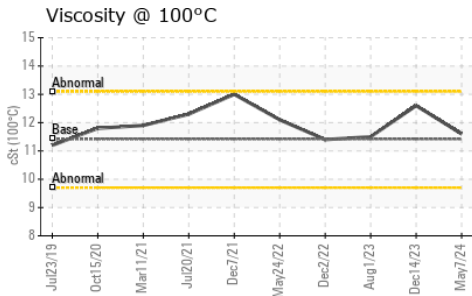
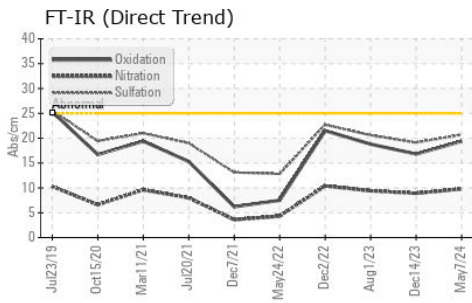
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	4	5	5
Potassium	ppm	ASTM D5185(m)	>20	<1	2	1
Fuel		WC Method	>5	<1.0	<1.0	▲ 2
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	9.8	8.9	9.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.7	19.1	20.6
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	2	4
Boron	ppm	ASTM D5185(m)	186	32	4	27
Barium	ppm	ASTM D5185(m)	<1	0	0	0
Molybdenum	ppm	ASTM D5185(m)	79	59	60	59
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	578	1100	1017	1099
Calcium	ppm	ASTM D5185(m)	1002	848	1034	792
Phosphorus	ppm	ASTM D5185(m)	745	1011	1049	1032
Zinc	ppm	ASTM D5185(m)	837	1197	1205	1173
Sulfur	ppm	ASTM D5185(m)	2502	2737	2805	2720
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.4	16.8	18.8
Visc @ 100°C	cSt	ASTM D7279(m)	11.42	11.6	12.6	▲ 11.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0288338
Lab Number : 02634930
Unique Number : 5776083
Test Package : MOB 1

Received : 13 May 2024
Tested : 13 May 2024
Diagnosed : 13 May 2024 - Wes Davis

American Iron and Metal
 1273 Kelly Lake Rd.
 Sudbury, ON
 CA P3E 5P5
 Contact: Service Manager

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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