



LIEBHERR

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH30M 1253-143895
Component
Diesel Engine
Fluid
PETRO CANADA DURON UHP 5W30 (--- GAL)

RECOMMENDATION

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0276314	---	---
Sample Date		Client Info		05 Jan 2024	---	---
Machine Age	hrs	Client Info		562	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

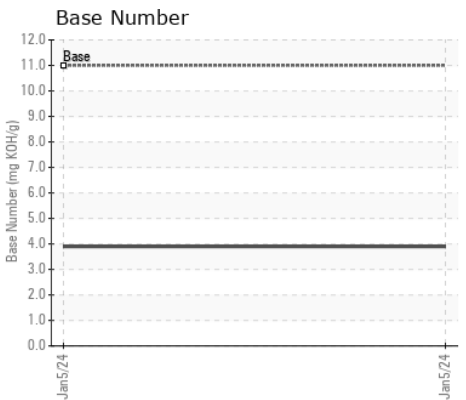
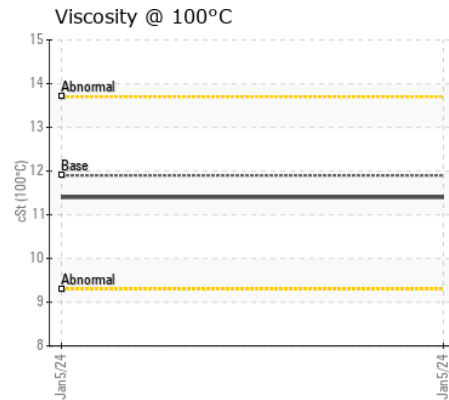
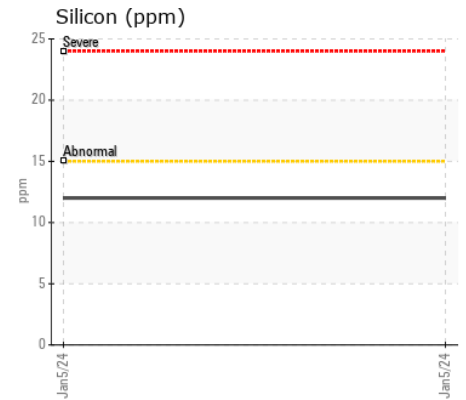
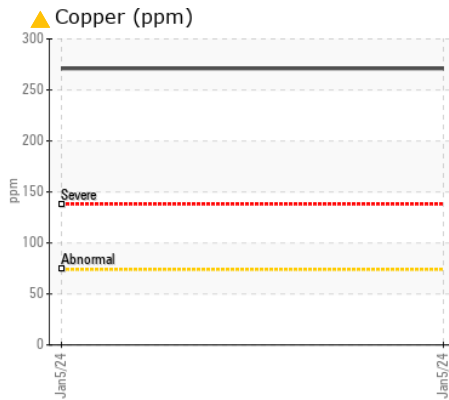
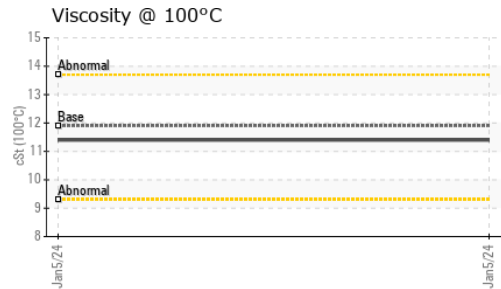
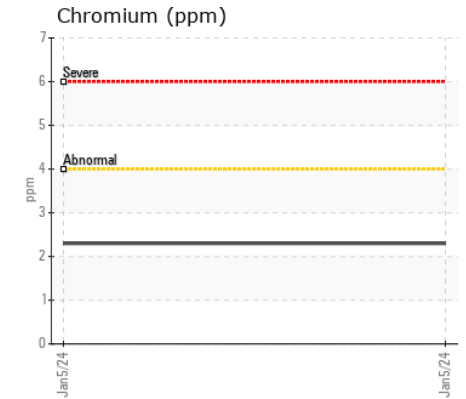
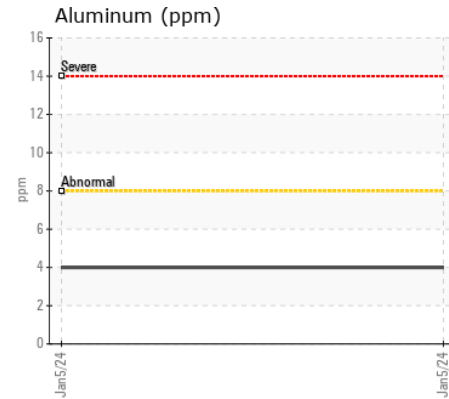
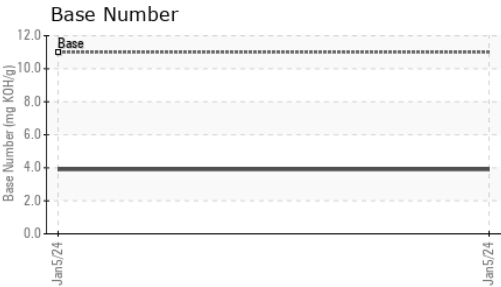
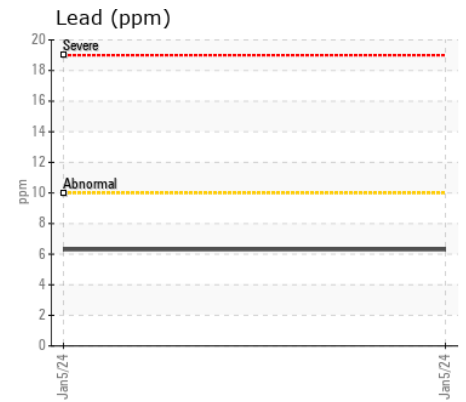
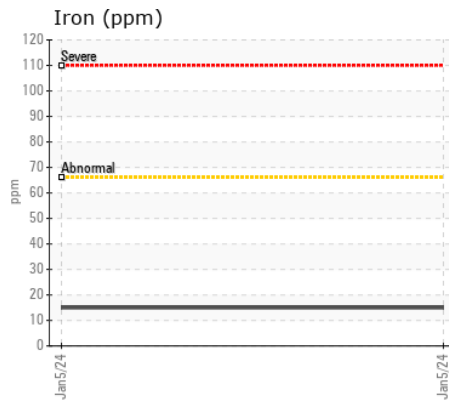
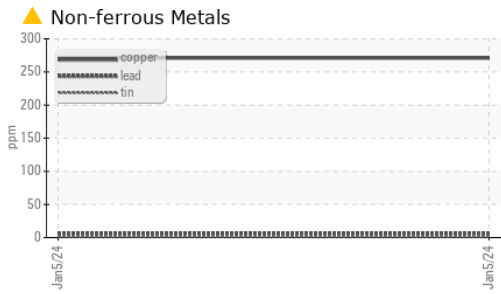
Iron	ppm	ASTM D5185m	>66	15	---	---
Chromium	ppm	ASTM D5185m	>4	2	---	---
Nickel	ppm	ASTM D5185m	>4	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>8	4	---	---
Lead	ppm	ASTM D5185m	>10	6	---	---
Copper	ppm	ASTM D5185m	>74	▲ 271	---	---
Tin	ppm	ASTM D5185m	>4	2	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

Silicon	ppm	ASTM D5185m	>15	12	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	12.0	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	39.9	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

FLUID CONDITION

Sodium	ppm	ASTM D5185m		3	---	---
Boron	ppm	ASTM D5185m	0	87	---	---
Barium	ppm	ASTM D5185m	0	28	---	---
Molybdenum	ppm	ASTM D5185m	64	47	---	---
Manganese	ppm	ASTM D5185m	0	1	---	---
Magnesium	ppm	ASTM D5185m	1160	912	---	---
Calcium	ppm	ASTM D5185m	820	1375	---	---
Phosphorus	ppm	ASTM D5185m	1160	730	---	---
Zinc	ppm	ASTM D5185m	1260	884	---	---
Sulfur	ppm	ASTM D5185m	3000	2087	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	52.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	11.0	3.9	---	---
Visc @ 100°C	cSt	ASTM D445	11.9	11.4	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0276314 **Received** : 12 Jan 2024
Lab Number : 06060053 **Diagnosed** : 16 Jan 2024
Unique Number : 10831435 **Diagnostician** : Doug Bogart
Test Package : MOBCE (Additional Tests: TBN)

TRAM CONSTRUCTION
 9279 E KY 8
 GARRISON, KY
 US 41141
 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: