



LIEBHERR

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
[W/L1817]
 Machine Id
LIEBHERR L020F R31119 (S/N 110899)
 Component
Gearbox
 Fluid
GEAR OIL ISO 220 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0247814	---	---
Sample Date		Client Info		20 Jan 2024	---	---
Machine Age	hrs	Client Info		2537	---	---
Oil Age	hrs	Client Info		200	---	---
Filter Age	hrs	Client Info		200	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

Gear wear is indicated.

Iron	ppm	ASTM D5185m	>200	▲ 268	---	---
Chromium	ppm	ASTM D5185m	>10	3	---	---
Nickel	ppm	ASTM D5185m	>10	<1	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>25	0	---	---
Lead	ppm	ASTM D5185m	>50	0	---	---
Copper	ppm	ASTM D5185m	>200	5	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

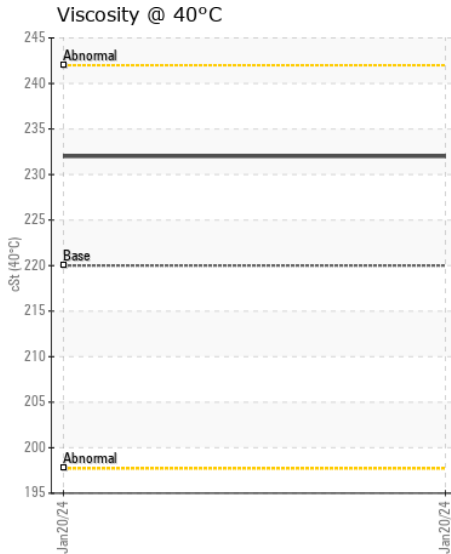
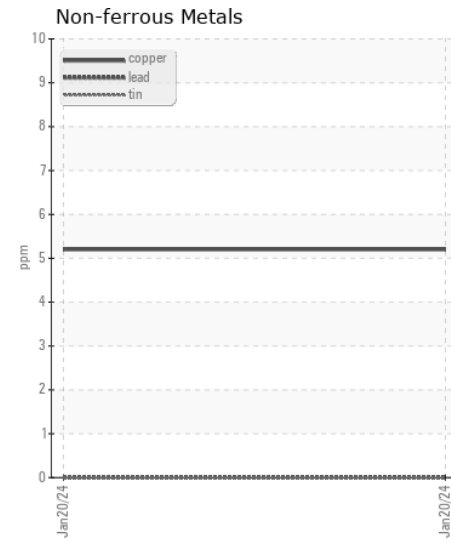
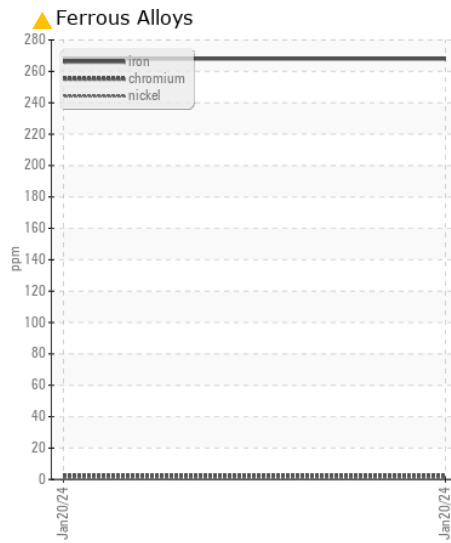
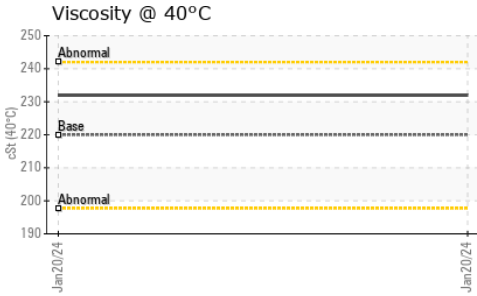
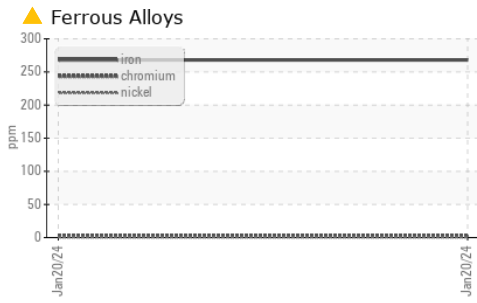
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	8	---	---
Potassium	ppm	ASTM D5185m	>20	0	---	---
Water		WC Method	>0.2	NEG	---	---
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

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

Sodium	ppm	ASTM D5185m		0	---	---
Boron	ppm	ASTM D5185m	50	31	---	---
Barium	ppm	ASTM D5185m	15	0	---	---
Molybdenum	ppm	ASTM D5185m	15	<1	---	---
Manganese	ppm	ASTM D5185m		4	---	---
Magnesium	ppm	ASTM D5185m	50	0	---	---
Calcium	ppm	ASTM D5185m	50	24	---	---
Phosphorus	ppm	ASTM D5185m	350	428	---	---
Zinc	ppm	ASTM D5185m	100	24	---	---
Sulfur	ppm	ASTM D5185m	12500	6053	---	---
Visc @ 40°C	cSt	ASTM D445	220	232	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0247814
Lab Number : 06083176
Unique Number : 10870621
Test Package : CONST

Received : 07 Feb 2024
Tested : 08 Feb 2024
Diagnosed : 09 Feb 2024 - Sean Felton

PETERSON CONTRACTORS INC
 PO BOX A
 REINBECK, IA
 US 50669
 Contact: WADE VANHAVEN
 MBERWALD@PCIUS.COM

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: