



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL



Machine Id
151628 LIEBHERR LH60-24 151628
Component
Hydraulic System
Fluid
SHELL TELLUS S2 MX 46 (--- QTS)

RECOMMENDATION

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		DJJ0021030	---	---
Sample Date		Client Info		15 May 2024	---	---
Machine Age	hrs	Client Info		675	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ATTENTION	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	8	---	---
Chromium	ppm	ASTM D5185m	>40	<1	---	---
Nickel	ppm	ASTM D5185m	>10	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		<1	---	---
Aluminum	ppm	ASTM D5185m	>5	2	---	---
Lead	ppm	ASTM D5185m	>5	1	---	---
Copper	ppm	ASTM D5185m	>15	3	---	---
Tin	ppm	ASTM D5185m	>5	1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

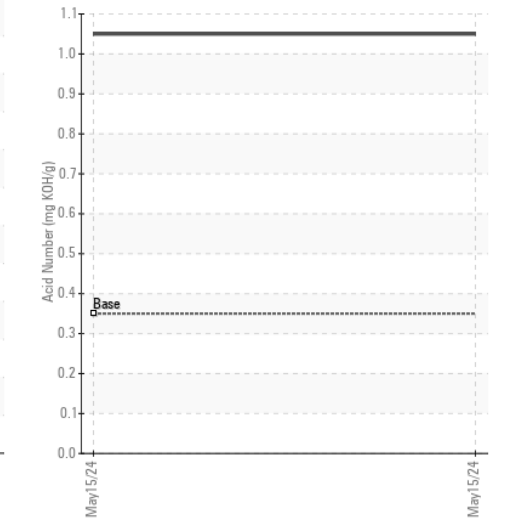
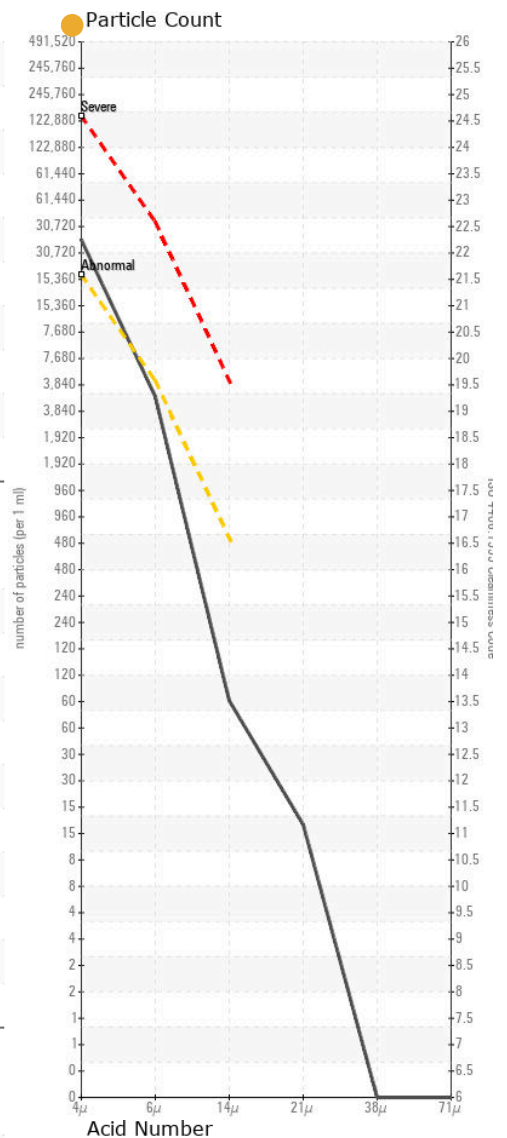
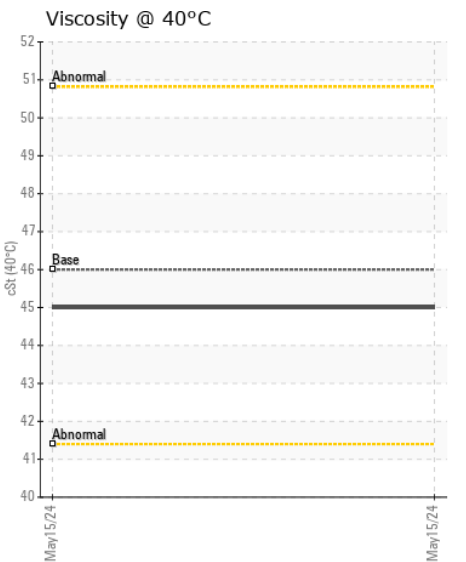
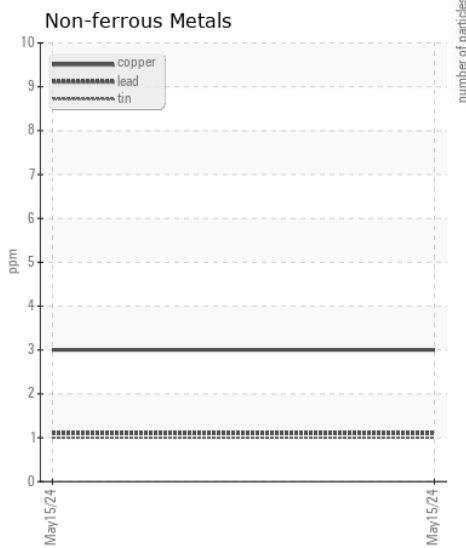
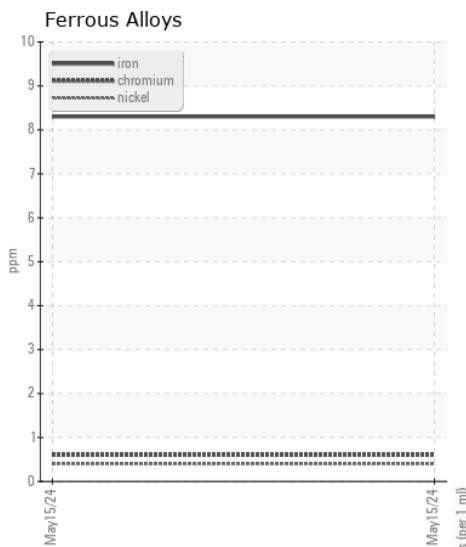
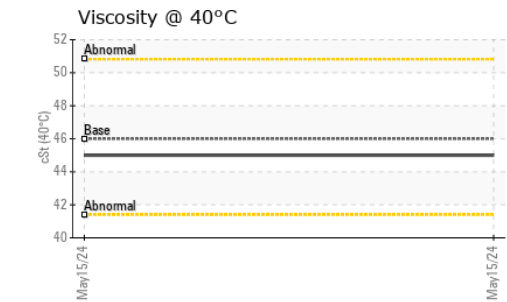
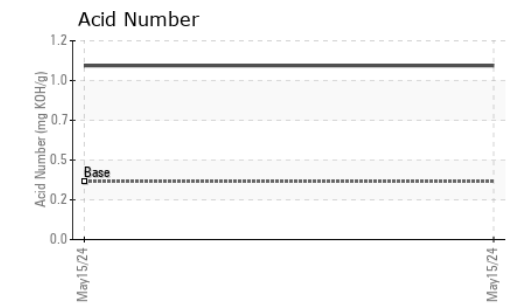
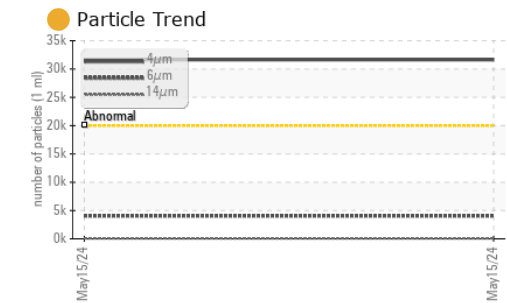
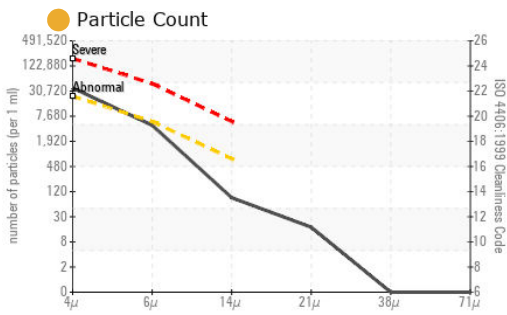
There is a moderate amount of silt (particulates < 6 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>15	5	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Water		WC Method	>0.1	NEG	---	---
Particles >4µm		ASTM D7647	>20000	31640	---	---
Particles >6µm		ASTM D7647	>5000	4061	---	---
Particles >14µm		ASTM D7647	>640	76	---	---
Particles >21µm		ASTM D7647	>160	15	---	---
Particles >38µm		ASTM D7647	>40	0	---	---
Particles >71µm		ASTM D7647	>10	0	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	22/19/13	---	---
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	>0.1	NEG	---	---

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oils additive package is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	---	---
Boron	ppm	ASTM D5185m	0	2	---	---
Barium	ppm	ASTM D5185m	0	0	---	---
Molybdenum	ppm	ASTM D5185m	0	<1	---	---
Manganese	ppm	ASTM D5185m	0	<1	---	---
Magnesium	ppm	ASTM D5185m	70	9	---	---
Calcium	ppm	ASTM D5185m	10	1257	---	---
Phosphorus	ppm	ASTM D5185m	300	531	---	---
Zinc	ppm	ASTM D5185m	325	665	---	---
Sulfur	ppm	ASTM D5185m	665	4089	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.35	1.05	---	---
Visc @ 40°C	cSt	ASTM D445	46.0	45.0	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0021030 **Received** : 23 May 2024
Lab Number : 06189602 **Tested** : 03 Jun 2024
Unique Number : 11046354 **Diagnosed** : 03 Jun 2024 - Jonathan Hester
Test Package : MOBCE

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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)