

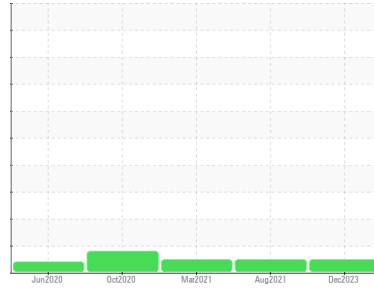


OIL ANALYSIS REPORT



Area
LIEBHERR
Machine Id
LIEBHERR A934CHD 060316-1419
Component
Rear Left Wheel Hub
Fluid
GEAR OIL SAE 80W90 (--- GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the fluid.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		DJJ0011209	DJJ0000792	DJJ0000952
Sample Date	Client Info		04 Dec 2023	03 Aug 2021	01 Mar 2021
Machine Age	hrs	Client Info	16052	14100	13641
Oil Age	hrs	Client Info	0	1000	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >450	36	30	29
Chromium	ppm	ASTM D5185m >4	<1	<1	<1
Nickel	ppm	ASTM D5185m >2	0	<1	<1
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >15	1	2	2
Lead	ppm	ASTM D5185m >4	0	<1	<1
Copper	ppm	ASTM D5185m >75	53	42	45
Tin	ppm	ASTM D5185m	0	0	0
Antimony	ppm	ASTM D5185m >4	---	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 400	38	48	41
Barium	ppm	ASTM D5185m 200	0	0	0
Molybdenum	ppm	ASTM D5185m 12	11	13	13
Manganese	ppm	ASTM D5185m	2	1	1
Magnesium	ppm	ASTM D5185m 12	68	86	93
Calcium	ppm	ASTM D5185m 150	296	371	429
Phosphorus	ppm	ASTM D5185m 1650	487	507	558
Zinc	ppm	ASTM D5185m 125	216	245	304
Sulfur	ppm	ASTM D5185m 22500	13288	11706	9960

CONTAMINANTS

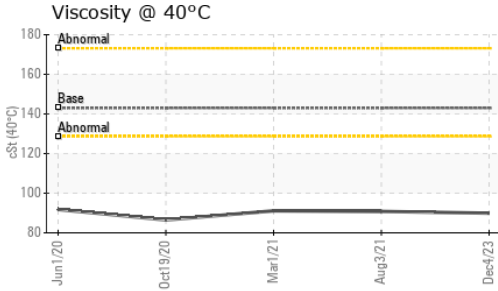
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >60	6	3	4
Sodium	ppm	ASTM D5185m >170	<1	<1	<1
Potassium	ppm	ASTM D5185m >20	0	4	0

VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual NONE	NONE	MODER	MODER
Precipitate	scalar	*Visual NONE	NONE	NONE	NONE
Silt	scalar	*Visual NONE	NONE	NONE	NONE
Debris	scalar	*Visual NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual NONE	NONE	NONE	NONE
Appearance	scalar	*Visual NORML	NORML	NORML	NORML
Odor	scalar	*Visual NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual >0.2	NEG	NEG	NEG
Free Water	scalar	*Visual	NEG	NEG	NEG



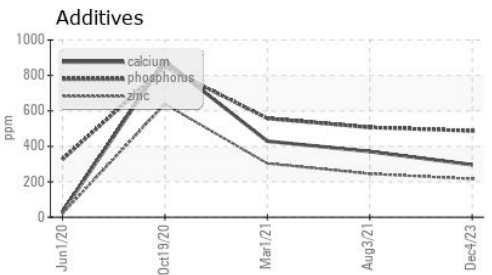
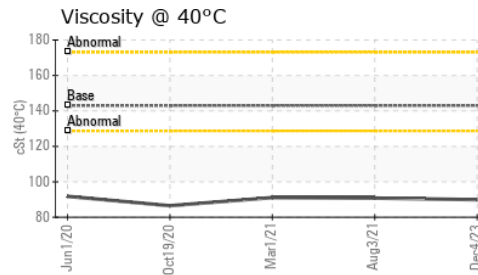
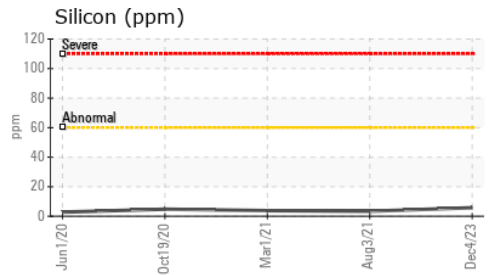
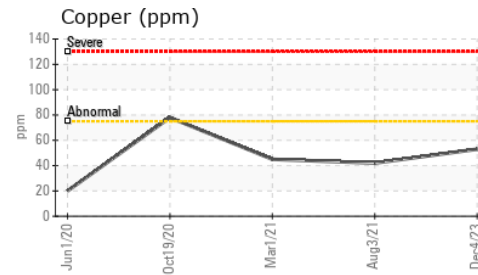
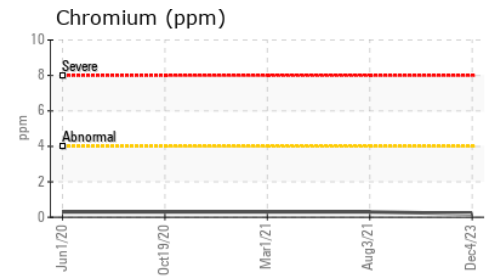
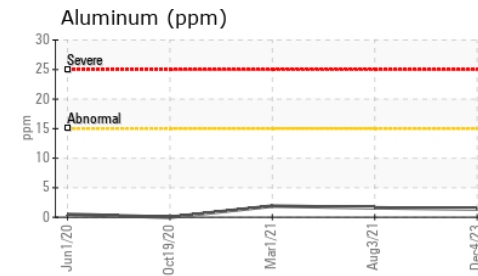
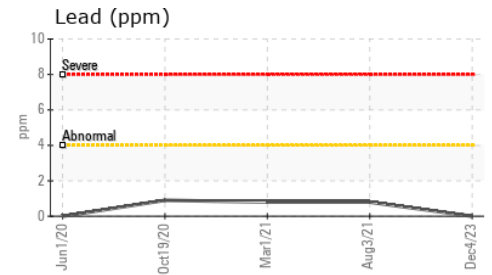
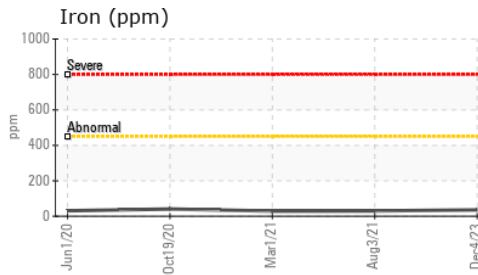
OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	143	89.9	90.8	91.1

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0011209 **Received** : 08 Dec 2023
Lab Number : 06029791 **Diagnosed** : 12 Dec 2023
Unique Number : 10779582 **Diagnostician** : Don Baldridge
Test Package : MOBCE

METAL RECYCLING SERVICES - MONROE
 P.O. BOX 812
 MONROE, NC
 US 28111
 Contact: RYAN BOWDEN

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)

T:
F: (704)238-0755