



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
AMR-Columbus
Machine Id
17571 LIEBHERR R924CEW 031533-1069
Component
Pump Drive
Fluid
LIEBHERR GEAR BASIC 90 LS (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DJJ0017216	DJJ0015102	---
Sample Date		Client Info		08 Apr 2024	04 Aug 2022	---
Machine Age	hrs	Client Info		14011	11130	---
Oil Age	hrs	Client Info		250	250	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	126	<1	---
Chromium	ppm	ASTM D5185m	>15	1	<1	---
Nickel	ppm	ASTM D5185m	>10	<1	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m		<1	0	---
Aluminum	ppm	ASTM D5185m	>20	3	2	---
Lead	ppm	ASTM D5185m		<1	0	---
Copper	ppm	ASTM D5185m	>35	1	0	---
Tin	ppm	ASTM D5185m	>4	4	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

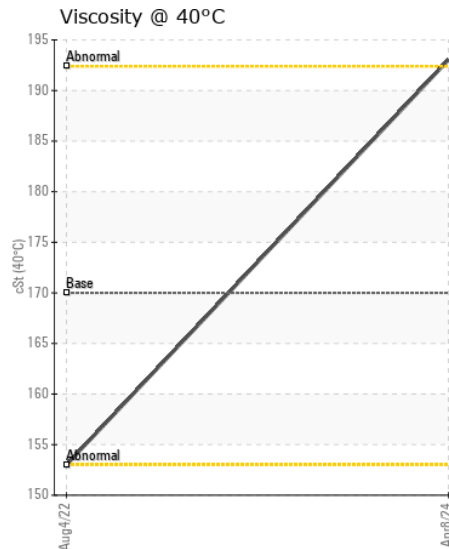
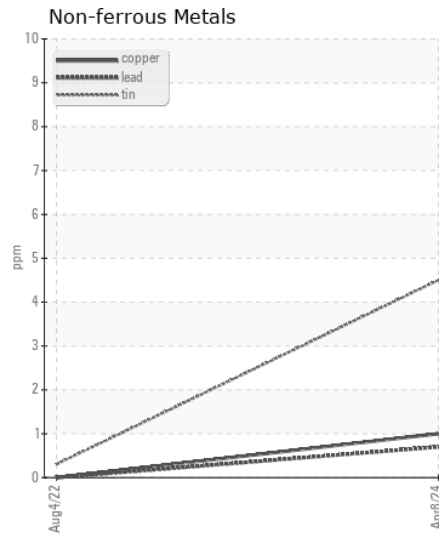
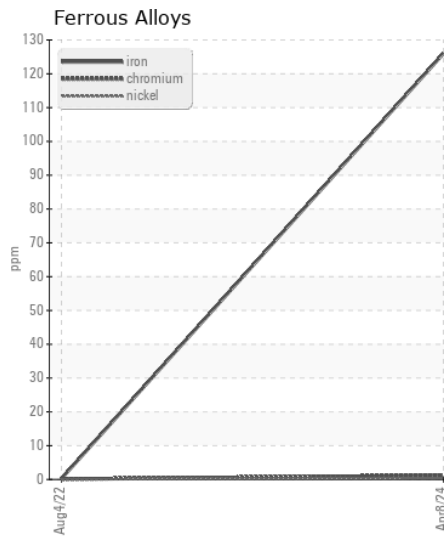
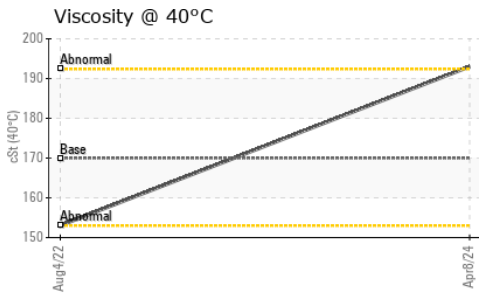
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	21	<1	---
Potassium	ppm	ASTM D5185m	>20	4	2	---
Water		WC Method	>0.2	NEG	NEG	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		0	4	---
Boron	ppm	ASTM D5185m	0	1	2	---
Barium	ppm	ASTM D5185m	0	<1	0	---
Molybdenum	ppm	ASTM D5185m	0	0	0	---
Manganese	ppm	ASTM D5185m	0	<1	0	---
Magnesium	ppm	ASTM D5185m	<1	7	0	---
Calcium	ppm	ASTM D5185m	<1	54	15	---
Phosphorus	ppm	ASTM D5185m	2143	3540	2108	---
Zinc	ppm	ASTM D5185m	<1	19	0	---
Sulfur	ppm	ASTM D5185m	23468	80020	25056	---
Visc @ 40°C	cSt	ASTM D445	170	193	153	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0017216
Lab Number : 06150745
Unique Number : 10980823
Test Package : CONST

Received : 16 Apr 2024
Tested : 17 Apr 2024
Diagnosed : 18 Apr 2024 - Don Baldrige

ADVANTAGE METALS RECYCLING - COLUMBUS
 2466 NW K-7 HWY
 COLUMBUS, KS
 US 66725

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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)