



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
TMR-Sunshine
Machine Id
21584 LIEBHERR R934 925-14645
Component
Swing Drive
Fluid
GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80W90. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DJJ0021125	DJJ0021128	DJJ0007492
Sample Date		Client Info		06 Feb 2024	17 Oct 2023	22 Jun 2022
Machine Age	hrs	Client Info		28499	27965	0
Oil Age	hrs	Client Info		0	1000	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	MARGINAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>750	45	▲ 697	52
Chromium	ppm	ASTM D5185m	>10	<1	▲ 10	0
Nickel	ppm	ASTM D5185m	>5	<1	1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	<1	4
Lead	ppm	ASTM D5185m	>5	<1	2	<1
Copper	ppm	ASTM D5185m	>250	39	10	31
Tin	ppm	ASTM D5185m	>10	2	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

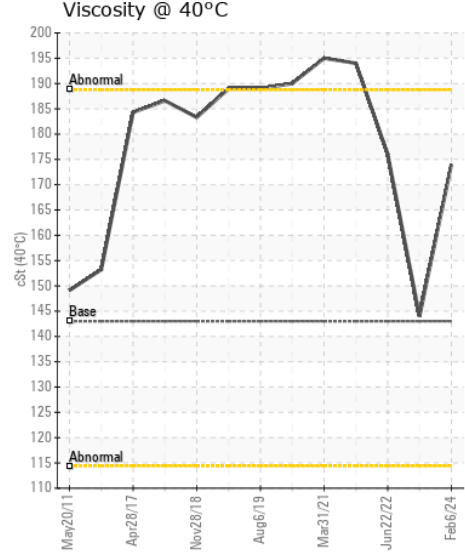
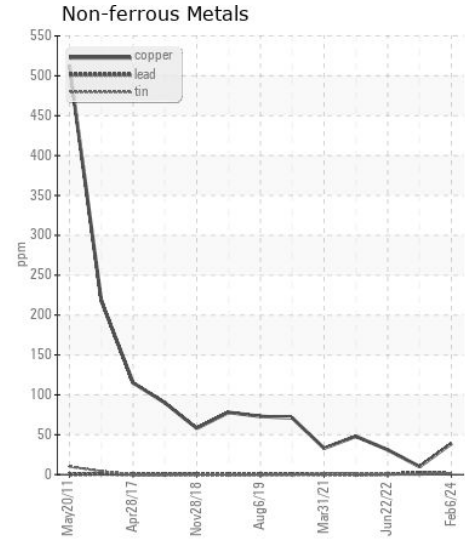
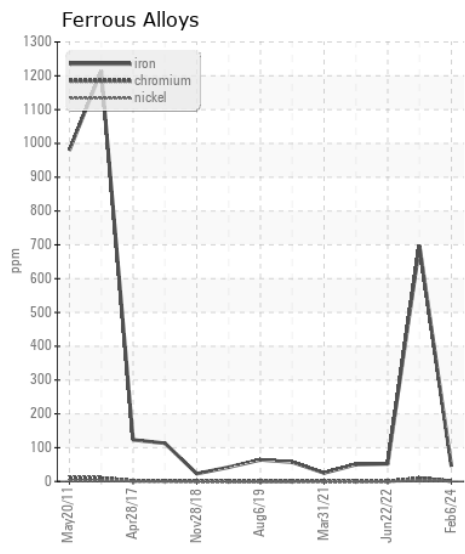
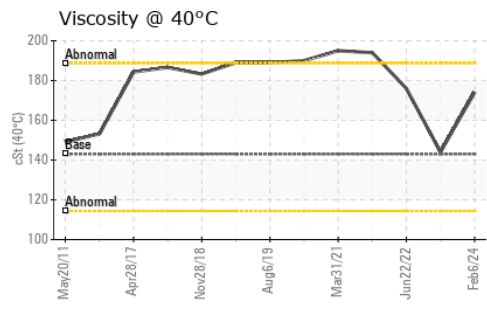
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	2	17	10
Potassium	ppm	ASTM D5185m	>20	2	2	0
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	▲ MODER
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

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>170	2	0	1
Boron	ppm	ASTM D5185m	400	19	55	0
Barium	ppm	ASTM D5185m	200	1	0	0
Molybdenum	ppm	ASTM D5185m	12	1	2	<1
Manganese	ppm	ASTM D5185m		1	6	<1
Magnesium	ppm	ASTM D5185m	12	7	10	2
Calcium	ppm	ASTM D5185m	150	37	559	115
Phosphorus	ppm	ASTM D5185m	1650	2113	851	2116
Zinc	ppm	ASTM D5185m	125	25	341	43
Sulfur	ppm	ASTM D5185m	22500	32826	13108	35680
Visc @ 40°C	cSt	ASTM D445	143	174	144	176



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0021125
Lab Number : 06087788
Unique Number : 10875233
Test Package : CONST

TRADEMARK METALS RECYCLING - SUNSHINE
 13200 CAIRO LN
 OPA LOCKA, FL
 US 33054
 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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