



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LIEBHERR 31250
 Component
Left Final Drive
 Fluid
CHEVRON DELO GEAR ESI OIL 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0924391	WC0846321	WC0756513
Sample Date		Client Info		17 May 2024	16 Nov 2023	01 Dec 2022
Machine Age	hrs	Client Info		4738	4230	3141
Oil Age	hrs	Client Info		2000	500	900
Filter Age	hrs	Client Info		2000	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	80	260	167
Chromium	ppm	ASTM D5185m	>10	<1	3	2
Nickel	ppm	ASTM D5185m	>10	0	<1	1
Titanium	ppm	ASTM D5185m		0	1	1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	5	23
Lead	ppm	ASTM D5185m	>25	0	0	0
Copper	ppm	ASTM D5185m	>50	0	1	<1
Tin	ppm	ASTM D5185m	>10	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

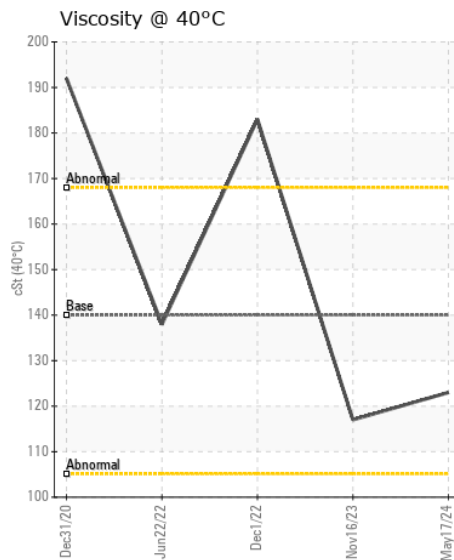
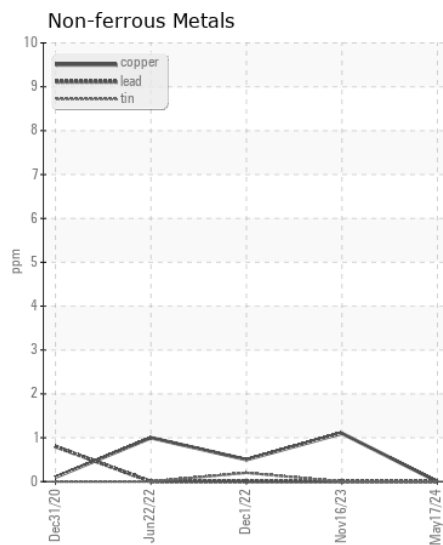
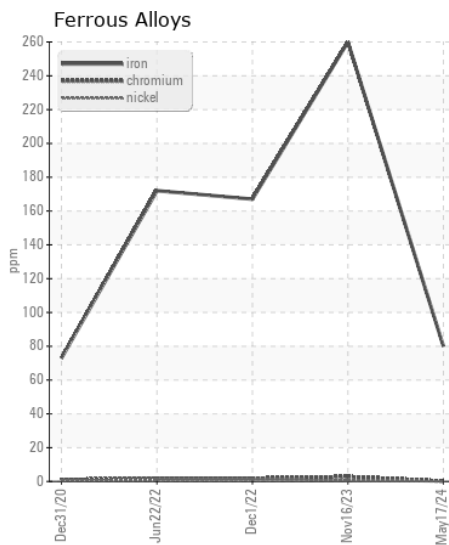
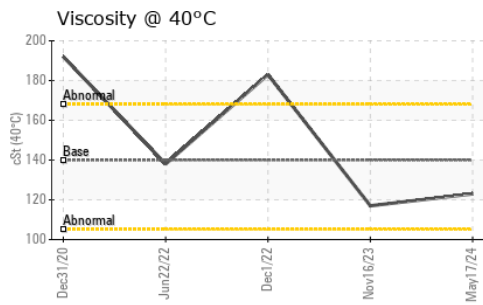
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	11	21	51
Potassium	ppm	ASTM D5185m	>20	<1	2	4
Water		WC Method	>0.2	NEG	NEG	NEG
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

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<1	0	3
Boron	ppm	ASTM D5185m	15	122	151	43
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	10	8	<1
Manganese	ppm	ASTM D5185m		0	2	2
Magnesium	ppm	ASTM D5185m	0	18	28	2
Calcium	ppm	ASTM D5185m	5	81	110	31
Phosphorus	ppm	ASTM D5185m	600	1632	3141	2076
Zinc	ppm	ASTM D5185m	0	54	96	12
Sulfur	ppm	ASTM D5185m	22000	22203	17431	25056
Visc @ 40°C	cSt	ASTM D445	140	123	117	183



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0924391
Lab Number : 06186583
Unique Number : 11043335
Test Package : CONST

Received : 21 May 2024
Tested : 22 May 2024
Diagnosed : 22 May 2024 - Wes Davis

SULLIVAN EASTERN INC-LIEBHERR
 2860 C SLATER RD
 MORRISVILLE, NC
 US 27560
 Contact: CHRIS CALTON

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: (919)484-2136