



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>ATTENTION</b>



Machine Id  
**LIEBHERR A934C-HD-LI C-49 (S/N 045168-1006)**  
Component  
**Rear Left Planetary**  
Fluid  
**CHEVRON MULTIGEAR EP5 80W90 (1 GAL)**

## RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0899803</b>	WC0869367	WC0828377
Sample Date		Client Info		<b>27 Feb 2024</b>	07 Nov 2023	05 Sep 2023
Machine Age	hrs	Client Info		<b>27156</b>	26737	26412
Oil Age	hrs	Client Info		<b>1091</b>	325	347
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Not Changed</b>	Changed	N/A
Sample Status				<b>ATTENTION</b>	ATTENTION	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	<b>26</b>	21	18
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>&lt;1</b>	<1	2
Lead	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>75	<b>2</b>	2	2
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

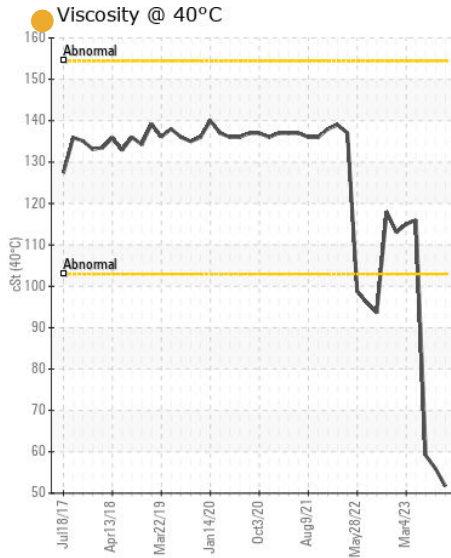
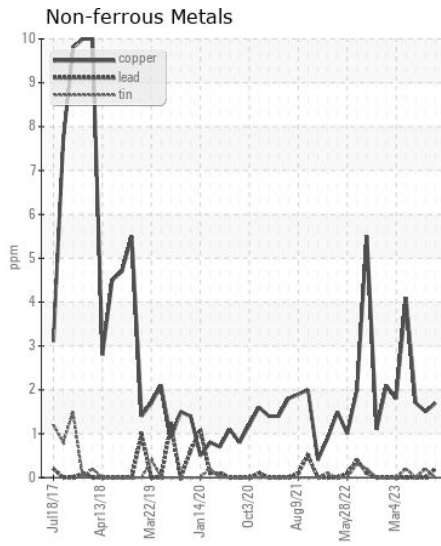
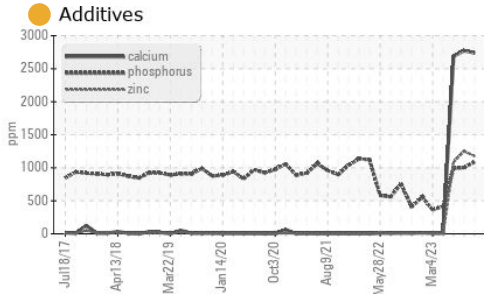
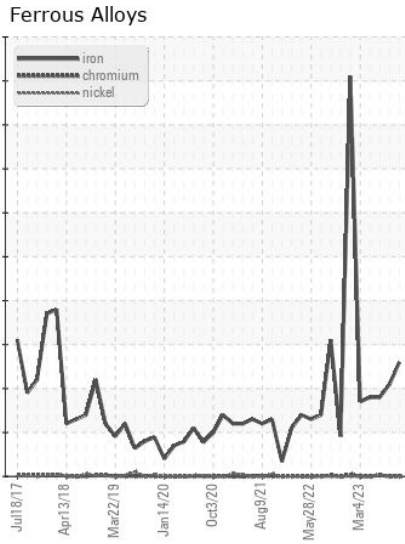
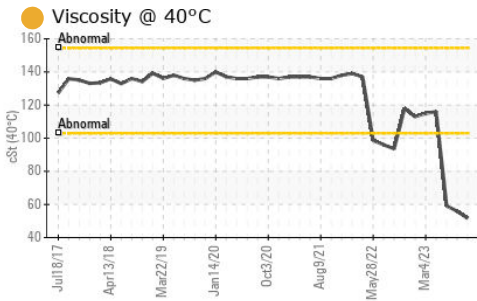
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	<b>6</b>	5	8
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	2
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		<b>0</b>	0	1
Boron	ppm	ASTM D5185m		<b>56</b>	62	65
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>1</b>	2	1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>16</b>	0	14
Calcium	ppm	ASTM D5185m		<b>2738</b>	2774	2689
Phosphorus	ppm	ASTM D5185m		<b>1087</b>	1004	993
Zinc	ppm	ASTM D5185m		<b>1175</b>	1253	1084
Sulfur	ppm	ASTM D5185m		<b>6784</b>	6743	6943
Visc @ 40°C	cSt	ASTM D445		<b>51.7</b>	55.9	59.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : WC0899803

**Lab Number** : 06105546

**Unique Number** : 10903776

**Test Package** : CONST

**Received** : 29 Feb 2024

**Tested** : 01 Mar 2024

**Diagnosed** : 04 Mar 2024 - Don Baldrige

**FRANKLIN IRON & METAL CORP**

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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)