



# LIEBHERR

## OIL ANALYSIS REPORT

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



Machine Id  
**LIEBHERR HS895HD 188176**  
Component  
**Pump Drive**  
Fluid  
**CHEVRON DELO GEAR ESI OIL 80W90 (6 LTR)**

### RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.  
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LH0242040</b>	---	---
Sample Date		Client Info		<b>02 May 2024</b>	---	---
Machine Age	hrs	Client Info		<b>36381</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>N/A</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>500	<b>5</b>	---	---
Chromium	ppm	ASTM D5185(m)	>15	<b>0</b>	---	---
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	---	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>0</b>	---	---
Lead	ppm	ASTM D5185(m)		<b>0</b>	---	---
Copper	ppm	ASTM D5185(m)	>35	<b>2</b>	---	---
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---	---
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

### CONTAMINATION

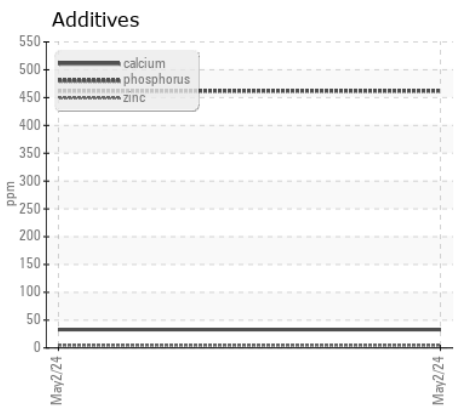
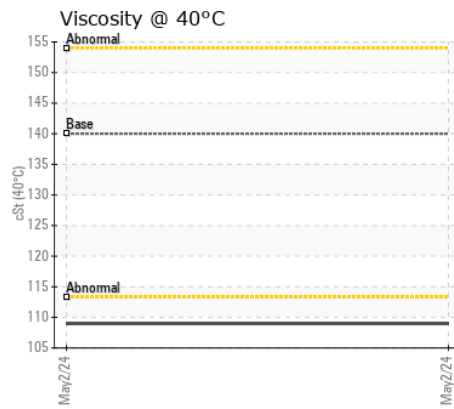
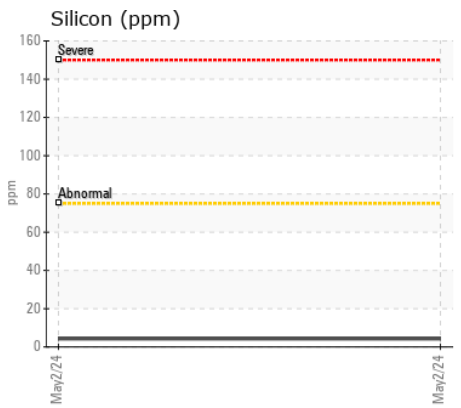
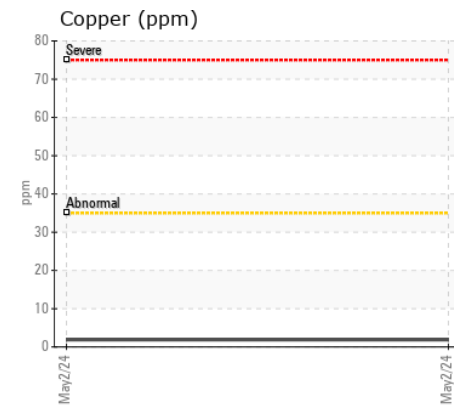
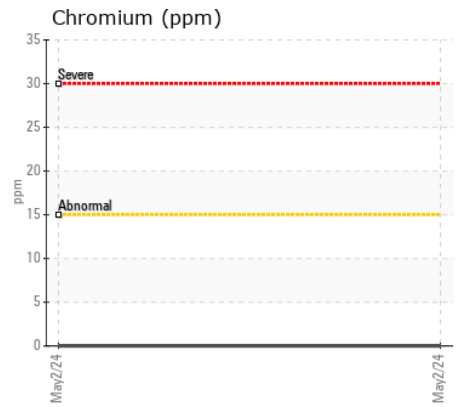
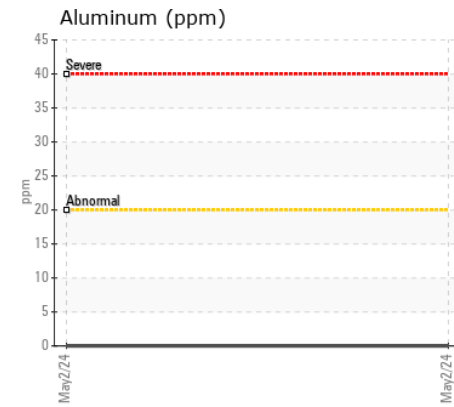
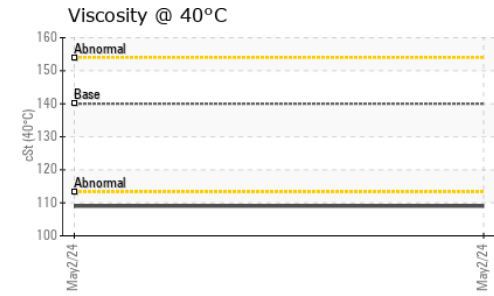
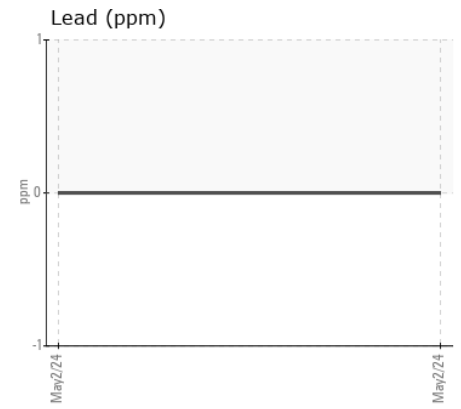
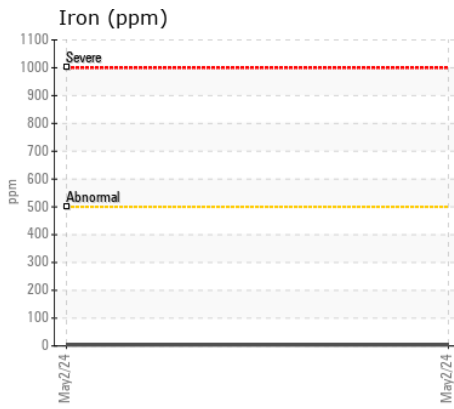
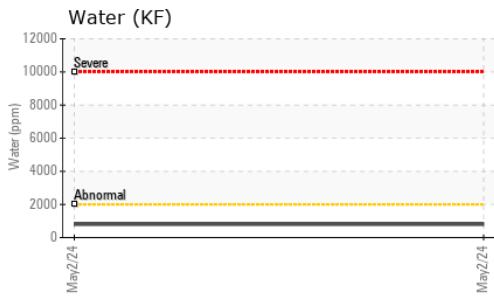
The water content is negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>75	<b>4</b>	---	---
Potassium	ppm	ASTM D5185(m)	>20	<b>1334</b>	---	---
Water	%	ASTM D6304*	>0.2	<b>0.080</b>	---	---
ppm Water	ppm	ASTM D6304*	>2000	<b>803</b>	---	---
Silt	scalar	Visual*	NONE	<b>VLITE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>HAZY</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	---	---

### FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. Viscosity of sample indicates oil is within SAE 90 range, advise investigate. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>10</b>	---	---
Boron	ppm	ASTM D5185(m)	15	<b>1208</b>	---	---
Barium	ppm	ASTM D5185(m)	0	<b>1</b>	---	---
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	---	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	---	---
Magnesium	ppm	ASTM D5185(m)	0	<b>2</b>	---	---
Calcium	ppm	ASTM D5185(m)	5	<b>33</b>	---	---
Phosphorus	ppm	ASTM D5185(m)	600	<b>462</b>	---	---
Zinc	ppm	ASTM D5185(m)	0	<b>5</b>	---	---
Sulfur	ppm	ASTM D5185(m)	22000	<b>12499</b>	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	140	<b>109</b>	---	---



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : LH0242040 **Received** : 29 May 2024  
**Lab Number** : 02638572 **Tested** : 31 May 2024  
**Unique Number** : 5787734 **Diagnosed** : 31 May 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: KF )

**Fraser River Pile & Dredge**  
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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.