

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR R938 050294-1650 - Right Final Drive

Sample No: LH0172355

Oil Type: GEAR OIL SAE 75W90



**MOOREFIELD EXCAVATING LTD.**  
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HARRISTON, ON  
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#### INFORMATION SUR L'ÉCHANTILLON

Número d'échant.	LH0172355	LH0172346	LH0257072	LH0172319
Date d'échant.	03 Jan 2024	11 Jul 2023	21 Mar 2023	14 Oct 2021
Heures de la Machine	4951	4478	4098	2273
Heures de l'huile	0	0	0	0
Huile changée	Changed	Not Changd	Changed	Changed
Statut de l'échant.	ABNORMAL	ABNORMAL	SEVERE	NORMAL



#### ÉTAT D'HUILE

Visc 40°C	cSt	100	103	95.7	193
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#### CONTAMINATION

Eau	%	0.197	NEG	NEG	NEG
Silicium	ppm	665	326	853	53
Sodium	ppm	27	14	36	6
Potassium	ppm	56	24	59	8



#### MÉTAUX D'USURE

PQ		119	28	129	---
Fer	ppm	1872	1269	2140	479
Cuivre	ppm	1	<1	2	<1
Plomb	ppm	<1	0	<1	<1
Étain	ppm	0	0	0	0
Aluminium	ppm	142	62	156	13
Chrome	ppm	25	15	24	6
Molybdène	ppm	1	1	2	<1
Nickel	ppm	1	<1	2	<1
Titane	ppm	8	4	8	<1
Argent	ppm	0	0	<1	<1
Manganèse	ppm	16	10	16	7
Vanadium	ppm	0	<1	<1	0



#### ADDITIFS

Calcium	ppm	581	301	639	100
Magnésium	ppm	208	115	221	31
Zinc	ppm	16	13	26	32
Phosphore	ppm	1205	1286	1254	1360
Baryum	ppm	0	<1	0	19
Bore	ppm	260	267	143	4

#### Diagnostic

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Chromium and iron ppm levels are abnormal. Aluminum ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The water content is negligible. High amount of ingressed dirt has caused abrasive wear to the component. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: MOOPAL  
Unique No: 5709377  
Signed: Kevin Marson  
Report Date: 15 Jan 2024



### GRAPHS

