# **CONSTRUCTION EQUIPMENT**

## LIEBHERR LH80M 1205-65873 - Diesel Engine

Sample No: LH0202889

PETRO CANADA 10W40 Oil Type:

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U SAM	IPLE INFO	<b>DRMATION</b>			
Sample Number		LH0202889	LH0251859	LH	LH
Sample Date		03 Aug 2023	22 Mar 2023	06 Jun 2022	11 Nov 2021
Machine Hours		29500	29054	27942	27541
Oil Hours		0	0	0	0
Oil Changed		Changed	Changed	Changed	Changed
Sample Status		ATTENTION	ABNORMAL	ABNORMAL	ABNORMAL
OIL	ONDITIO	ON			
Visc @ 100°C	cSt	① 14.5	O 14.3	O 14.3	O 14.6
Oxidation (PA)	%	59	74	65	43
	TAMINA		008	008	0.07
Soot %	%	<b>0.4</b>	0.8	0.8	0.7
Nitration (PA)	%	74	106	93	58
Sulfation (PA)	%	57	71	65	52
Glycol	%	<b>0.0</b>	0.0	0.0	0.0
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	<b>6</b>	0 8	<b>9</b>	<b>7</b>
Sodium	ppm	<b>O</b> 207	<del>0</del> 630	<del>0</del> 748	O 182
Potassium	ppm	<b>2</b>	<b>3</b>	O	O 2
◎ WEA	R META	LS			
Iron	ppm	<b>8</b>	O 18	O 21	<b>19</b>
Copper	ppm	<b>1</b>	<b>3</b>	<b>3</b>	O 2
Lead	ppm	<b>0</b>	O <1	O <1	O <1
Tin	ppm	<b>0</b>	O <1	O <1	O <1
Aluminum	ppm	<b>5</b>	O 15	<b>2</b> 5	<b>10</b>
Chromium	ppm	<b>0</b> <1	O <1	O 1	<b></b> <1



#### **GERDAU AMERISTEEL** 1 GERDAU COURT WHITBY, ON CA L1N 5T1

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### Diagnosis

Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. The water content is negligible. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service (see recommendation).

Vanadium	ppm	0	0	0	0					
ADDITIVES										
Calcium	ppm	<b>1233</b>	O 1208	O 1124	O 1161					
Magnesium	ppm	<b>793</b>	943	932	922					
Zinc	ppm	<b>1063</b>	O 1144	O 1194	O 1165					
Phosphorus	ppm	<b>952</b>	995	O 1054	<b>1007</b>					
Barium	ppm	<b>0</b>	<b>0</b>	O 0	O 0					
Boron	ppm	<b>22</b>	O 5	O 9	0 9					

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<1</p>

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Depot: LAKWHI Unique No: 5619507 Signed: Kevin Marson **Report Date:** 08 Aug 2023

**41** 

0 <1

**0** 

<1</p>

<1

ppm

ppm

ppm

ppm

ppm

Molybdenum

Nickel

Silver

Titanium

Manganese

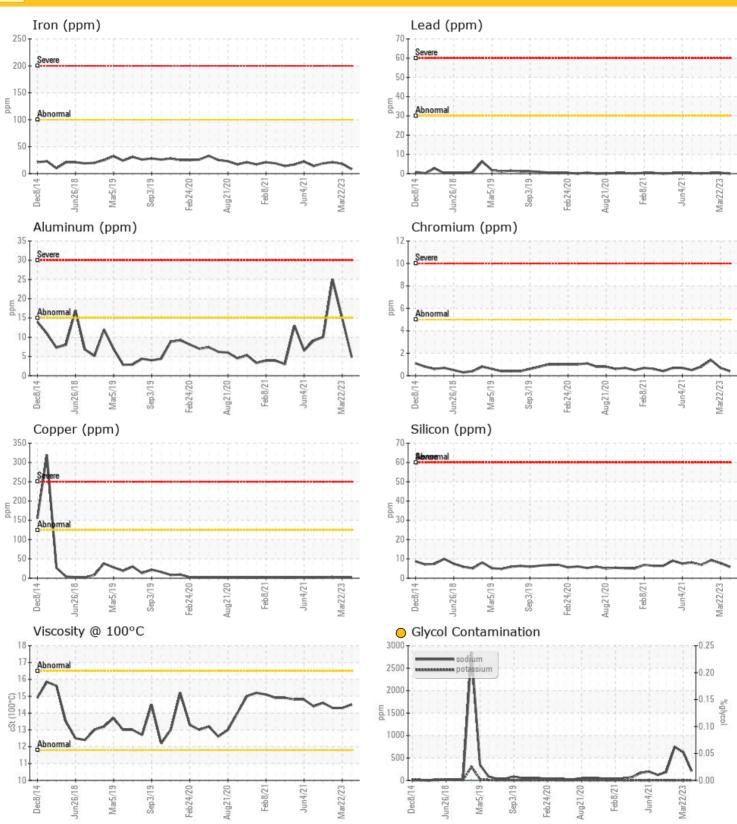
# LIEBHERR

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#### **GRAPHS**



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Submitted By: Rick Cule