CONSTRUCTION EQUIPMENT

LIEBHERR L580 038365-1170 - Diesel Engine

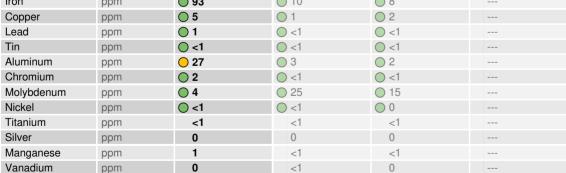
Sample No: LH0137238

PT

Oil Type:

SAMPLE INFORMATION

Sample Number		LH0137238	LH0107626	LH0088069	
Sample Date		30 Jan 2019	17 Jun 2016	09 Jun 2016	
Machine Hours		10625	2618	2550	
Oil Hours		0	0	0	
Oil Changed		Changed	Changed	Changed	
Sample Status		SEVERE	SEVERE	ABNORMAL	
OIL CO	DNDITION				
Visc @ 100°C	cSt	4 .9	0 12.1	0 11.9	
Base Number (BN)	mg KOH/g		0 10.21		
Oxidation (PA)	%	79	94	94	
CONT	AMINATIO	DN			
Water	%	NEG	NEG	NEG	
Soot %	%	01.1	0.3	0.2	
Nitration (PA)	%	109	94	86	
Sulfation (PA)	%	58	68	67	
Glycol	%	0.0	0.10	0.0	
Fuel	%	0 25.1	<1.0	<1.0	
Silicon	ppm	8	○ 7	6	
Sodium	ppm	62	0 540	O 361	
Potassium	ppm	0 16	0 49	<u> </u>	
	RMETALS				
Iron	ppm	93	0 10	8	
Copper	ppm	5	01	2	
Lead	nom	01	\bigcirc <1	<1	



ADDITIVES								
Calcium	ppm	0 1670	2367	2397				
Magnesium	ppm	0 62	○ 79	80				
Zinc	ppm	541	0 767	780				
Phosphorus	ppm	475	688	○ 700				
Barium	ppm	○ <1	○ <1	◯ <1				
Boron	ppm	01	0 16	12				



LIEBHERR CANADA LTD.

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Diagnosis

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.Aluminum ppm levels are abnormal. Piston wear is indicated. There is a high amount of fuel present in the oil. Test for glycol is negative. Tests confirm the presence of fuel in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot:LIEMISUnique No:4821718Signed:Kevin MarsonReport Date:11 Feb 2019

Report Id: LIEMIS [WCAMIS] 02266487 (Generated: 12/11/2023 11:03:07) Rev: 1

Contact/Location: Steve Lehto - LIEMIS

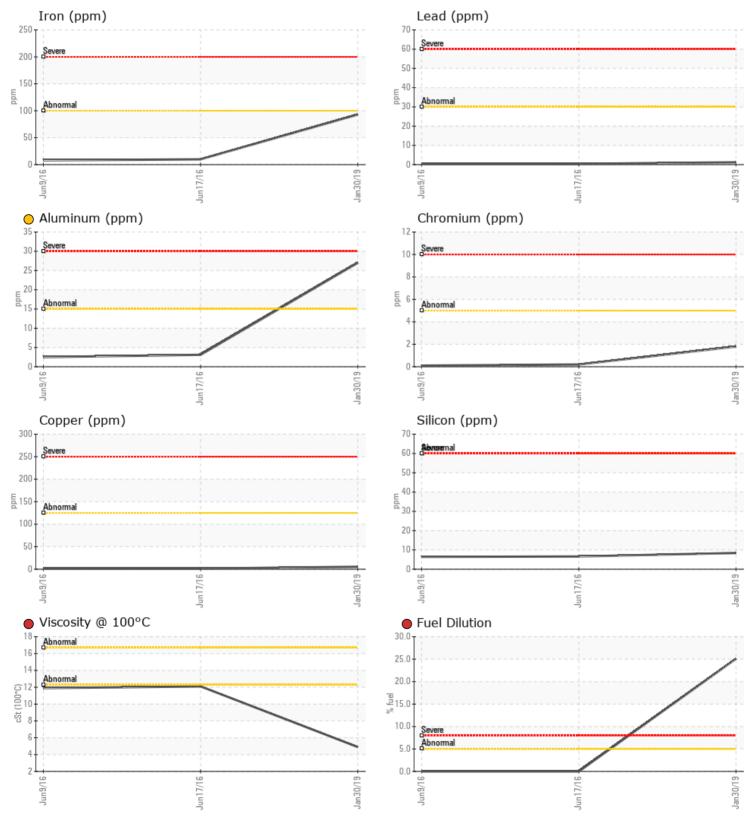






GRAPHS

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