WEAR CONTAMINATION FLUID CONDITION

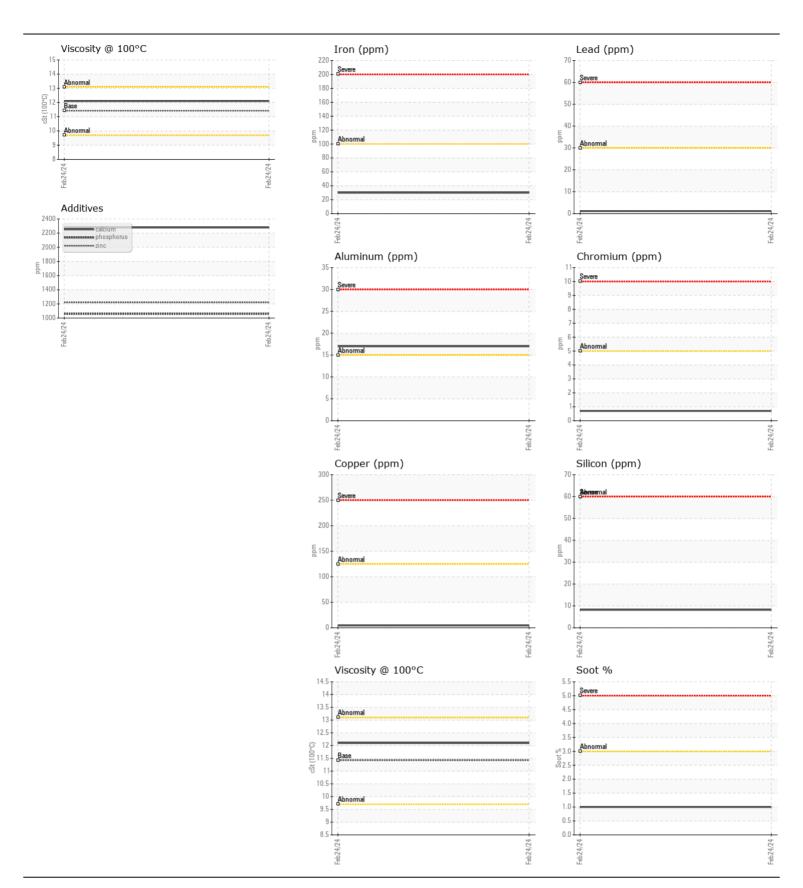
NORMAL NORMAL NORMAL



## **LIEBHERR LH60 096587**

Component Diesel Engine

PETRO CANADA SUPREME 5V	V30 ( GAL	)					
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		LH0284792		
Confirm the source of the lubricant being utilized for top-up/fill.  Resample at the next service interval to monitor.	Sample Date		Client Info		24 Feb 2024		
	Machine Age	hrs	Client Info		11676		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
WEAD	Lance		AOTM DE40E()	400			
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185(m)		30		
	Chromium	ppm	ASTM D5185(m)		<1		
	Nickel	ppm	ASTM D5185(m)	>5	<1		
	Titanium	ppm	ASTM D5185(m)		0		
	Silver	ppm	ASTM D5185(m)		0		
	Aluminum	ppm	ASTM D5185(m)		17		
	Lead	ppm	ASTM D5185(m)	>30	1		
	Copper	ppm	ASTM D5185(m)		4		
	Tin	ppm	ASTM D5185(m)	>5	<1		
	Vanadium	ppm	ASTM D5185(m)	NONE	0 NONE		
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>60	8		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	4		
	Fuel		WC Method	>5	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	ASTM D7844*	>3	1		
	Nitration	Abs/cm	ASTM D7624*	>20	11.9		
	Sulfation	Abs/.1mm	ASTM D7415*	>30	24.7		
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar	Visual*	NONE	NONE		
	Sand/Dirt	scalar	Visual*	NONE	VLITE		
	Appearance	scalar	Visual*	NORML	NORML		
	Odor	scalar		NORML	NORML		
	Emulsified Water	scalar	Visual*	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		12		
	Boron	ppm	ASTM D5185(m)	186	24		
Additive levels indicate the addition of a different brand, or type of oil.  The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185(m)	<1	0		
	Molybdenum	ppm	ASTM D5185(m)		91		
	Manganese	ppm	ASTM D5185(m)	0	0		
	Magnesium	ppm	ASTM D5185(m)		86		
	Calcium	ppm	ASTM D5185(m)	1002	2278		
	Phosphorus	ppm	ASTM D5185(m)		1058		
	Zinc	ppm	ASTM D5185(m)	837	1219		
	Sulfur	ppm	ASTM D5185(m)	2502	3346		
	Oxidation	Abs/.1mm	ASTM D7414*	>25	18.8		
	Visc @ 100°C	cSt	ASTM D7279(m)	11.42	12.1		





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

: LH0284792 Lab Number : 02619888 Unique Number : 5736998

Received

: 05 Mar 2024 **Tested** Diagnosed

: 05 Mar 2024 : 05 Mar 2024 - Kevin Marson

Test Package : MOB 1 (Additional Tests: Visual) 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.

**American Iron and Metal** 

131 Toombs St Moncton, NB CA E1A 3A5

Contact: Service Manager

T: F: