WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

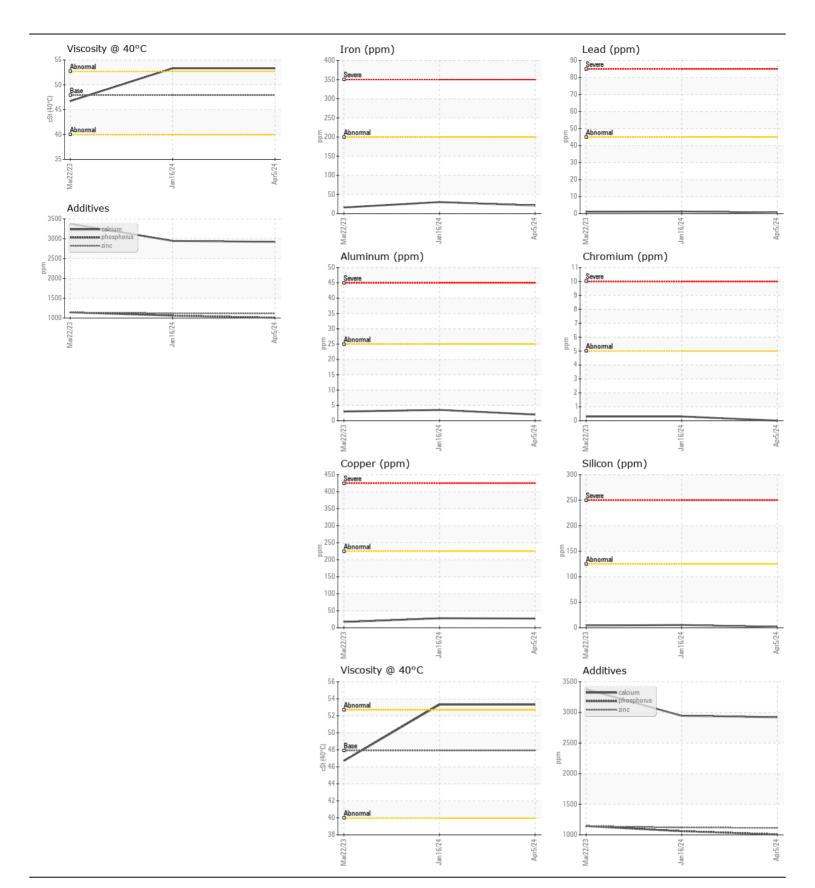


LIEBHERR LH30M 144578-1253

Transmission (Manual)

PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (--- GAL)

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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL, however, a fluid match indicates that this fluid is SAE 20 Transmission/Drive Train Oil. Please confirm the fluid type and grade on your next sample.	Sample Number		Client Info		LH0278715	LH0278617	LH0250056
	Sample Date		Client Info		05 Apr 2024	16 Jan 2024	22 Mar 2023
	Machine Age	hrs	Client Info		1300	1200	498
	Oil Age	hrs	Client Info		0	0	0
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		Not Changd	Not Changd	Changed
	Filter Changed		Client Info		N/A	N/A	N/A
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR							
WEAR	Iron	ppm	ASTM D5185(m)		21	30	16
All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)		0	<1	<1
	Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
	Titanium	ppm	ASTM D5185(m)		0	0	<1
	Silver	ppm	ASTM D5185(m)		0	0	0
	Aluminum	ppm	ASTM D5185(m)	>25	2	4	3
	Lead	ppm	ASTM D5185(m)	>45	<1	1	1
	Copper	ppm	ASTM D5185(m)	>225	27	28	17
	Tin	ppm	ASTM D5185(m)	>10	0	<1	<1
	Vanadium	ppm	ASTM D5185(m)		0	0	<1
	White Metal	scalar	Visual*	NONE	VLITE	NONE	VLITE
	Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>125	2	5	4
There is no indication of any contamination in the fluid.	Potassium	ppm	ASTM D5185(m)	>20	3	3	3
	Water		WC Method	>0.1	NEG	NEG	NEG
	Silt	scalar	Visual*	NONE	NONE	NONE	NONE
	Debris	scalar	Visual*	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	Visual*	NONE	VLITE	LIGHT	VLITE
	Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
	Odor	scalar	Visual*	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		31	32	49
The fluid viscosity is higher than typical. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the fluid is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)	0	33	33	4
	Barium	ppm	ASTM D5185(m)	0	<1	<1	<1
	Molybdenum	ppm	ASTM D5185(m)	0	0	<1	1
	Manganese	ppm	ASTM D5185(m)	1	10	16	20
	Magnesium	ppm	ASTM D5185(m)	0	9	10	10
	Calcium	ppm	ASTM D5185(m)	100	2921	2945	3379
	Phosphorus	ppm	ASTM D5185(m)	670	1007	1060	1144
			AOTA DEADE()	050	4440	1110	1143
	Zinc	ppm	ASTM D5185(m)	850	1113	1119	1143
	Zinc Sulfur	ppm	ASTM D5185(m) ASTM D5185(m)		6250	6630	7924





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: LH0278715 Lab Number : 02630671 Unique Number : 5763803

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received : 22 Apr 2024 **Tested**

Test Package : MOB 1

: 22 Apr 2024 Diagnosed

: 22 Apr 2024 - Kevin Marson

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.

Industrial Metals

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Contact: Service Manager

T: F: