



LIEBHERR LH40M 120553-1215

Front Left Wheel Hub

PETRO CANADA TRAXON 75W90 SYNTHETIC (--- GAL)

RECOMMENDATION

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 TRAXON 75W90 SYNTHETIC, however, a fluid match indicates that this fluid is SAE 75W90 Gear Oil. Please confirm the oil type and grade on your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

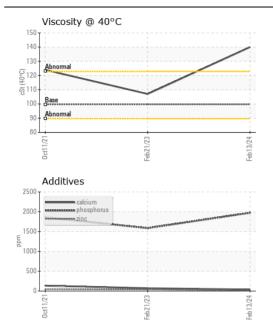
There is no indication of any contamination in the oil.

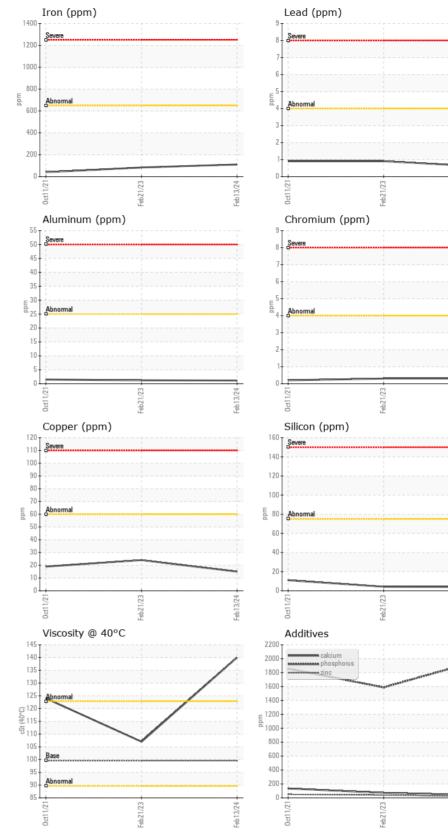
FLU	ONL	IN

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0193879	LH0193865	LH0193851
Sample Date		Client Info		13 Feb 2024	21 Feb 2023	11 Oct 2021
Machine Age	hrs	Client Info		4086	2835	1021
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		None	None	None
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>650	110	83	40
Chromium	ppm	ASTM D5185(m)	>4	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1
Titanium	ppm	ASTM D5185(m)	>4	0	0	0
Silver	ppm	ASTM D5185(m)		0	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	1	1	2
Lead	ppm	ASTM D5185(m)	>4	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>60	15	24	19
Tin	ppm	ASTM D5185(m)	>4	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	VLITE	LIGHT
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>75	4	4	11
Silicon Potassium	ppm ppm	ASTM D5185(m) ASTM D5185(m)	>75 >20	4 2	4	11 2
		()		-		
Potassium		ASTM D5185(m)	>20	2	1	2
Potassium Water	ppm	ASTM D5185(m) WC Method	>20 >0.2	2 NEG	1 NEG	2 NEG
Potassium Water Silt	ppm scalar	ASTM D5185(m) WC Method Visual*	>20 >0.2 NONE	2 NEG VLITE	1 NEG NONE	2 NEG NONE
Potassium Water Silt Debris	ppm scalar scalar	ASTM D5185(m) WC Method Visual* Visual*	>20 >0.2 NONE NONE	2 NEG VLITE NONE	1 NEG NONE NONE	2 NEG NONE NONE
Potassium Water Silt Debris Sand/Dirt	ppm scalar scalar scalar	ASTM D5185(m) WC Method Visual* Visual* Visual*	>20 >0.2 NONE NONE NONE	2 NEG VLITE NONE NONE	1 NEG NONE NONE	2 NEG NONE NONE
Potassium Water Silt Debris Sand/Dirt Appearance	ppm scalar scalar scalar scalar	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual*	>20 >0.2 NONE NONE NONE	2 NEG VLITE NONE NONE NORML	1 NEG NONE NONE NONE NORML	2 NEG NONE NONE NONE NORML
Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm scalar scalar scalar scalar scalar	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual*	>20 >0.2 NONE NONE NORML NORML	2 NEG VLITE NONE NORE NORML NORML	1 NEG NONE NONE NONE NORML	2 NEG NONE NONE NORML NORML
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm scalar scalar scalar scalar scalar scalar	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual*	>20 >0.2 NONE NONE NORML NORML	2 NEG VLITE NONE NORML NORML NEG	1 NEG NONE NONE NORML NORML NEG	2 NEG NONE NONE NORML NORML NEG
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m)	>20 >0.2 NONE NONE NORML NORML >0.2	2 NEG VLITE NONE NORML NORML NEG 8	1 NEG NONE NONE NORML NORML NEG 12	2 NEG NONE NONE NORML NORML NEG 9
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML >0.2	2 NEG VLITE NONE NORML NORML NEG 8 50	1 NEG NONE NONE NORML NORML NEG 12 179	2 NEG NONE NONE NORML NORML NEG 9 81
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML >0.2	2 NEG VLITE NONE NORML NORML NEG 8 50 0	1 NEG NONE NONE NORML NORML NEG 12 179 0	2 NEG NONE NONE NORML NORML NEG 9 81 <1
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML >0.2	2 NEG VLITE NONE NORML NORML NEG 8 50 0 0	1 NEG NONE NONE NORML NORML NEG 12 179 0 1	2 NEG NONE NONE NORML NORML NEG 9 81 <1 2
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML >0.2 328 1	2 NEG VLITE NONE NORML NORML NEG 8 50 0 0 2	1 NEG NONE NONE NORML NORML NEG 12 179 0 13	2 NEG NONE NONE NORML NORML NEG 9 81 <1 2 3
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML NORML >0.2 328 1	2 NEG VLITE NONE NORML NORML NEG 8 50 0 0 0 2 2 2	1 NEG NONE NONE NORML NORML NEG 12 179 0 1 179 0 1 3 3 3	2 NEG NONE NONE NORML NORML NEG 9 81 <1 2 3 3 3
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML NORML >0.2 328 1 328 1 1 7	2 NEG VLITE NONE NORML NORML NEG 8 50 0 0 2 2 2 38	1 NEG NONE NONE NORML NORML NEG 12 179 0 11 3 3 3 72	2 NEG NONE NONE NORML NORML NEG 9 81 <1 2 3 3 3 135
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185(m) WC Method Visual* Visual* Visual* Visual* Visual* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>20 >0.2 NONE NONE NORML >0.2 328 1 328 1 1 7 1145	2 NEG VLITE NONE NORML NORML NEG 8 50 0 0 2 2 2 38 1974	1 NEG NONE NONE NORML NORML NEG 12 179 0 12 179 0 13 3 3 72 1588	2 NEG NONE NONE NORML NORML NEG 9 81 <1 2 3 3 3 135 1857

Submitted By: ?





Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. Received : LH0193879 : 16 Feb 2024 E Lab Number : 02616385 Tested : 20 Feb 2024 ISO 17025:2017 Accredited Laboratory Unique Number : 5733495 Diagnosed : 20 Feb 2024 - Kevin Marson Test Package : MOBCE (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.

Goodies Trading Ltd. 8150 Aitken Road Chilliwack, BC CA V2R 4H5 Contact: Service Manager

T: F:

Feb 13/24

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