WEAR CONTAMINATION FLUID CONDITION

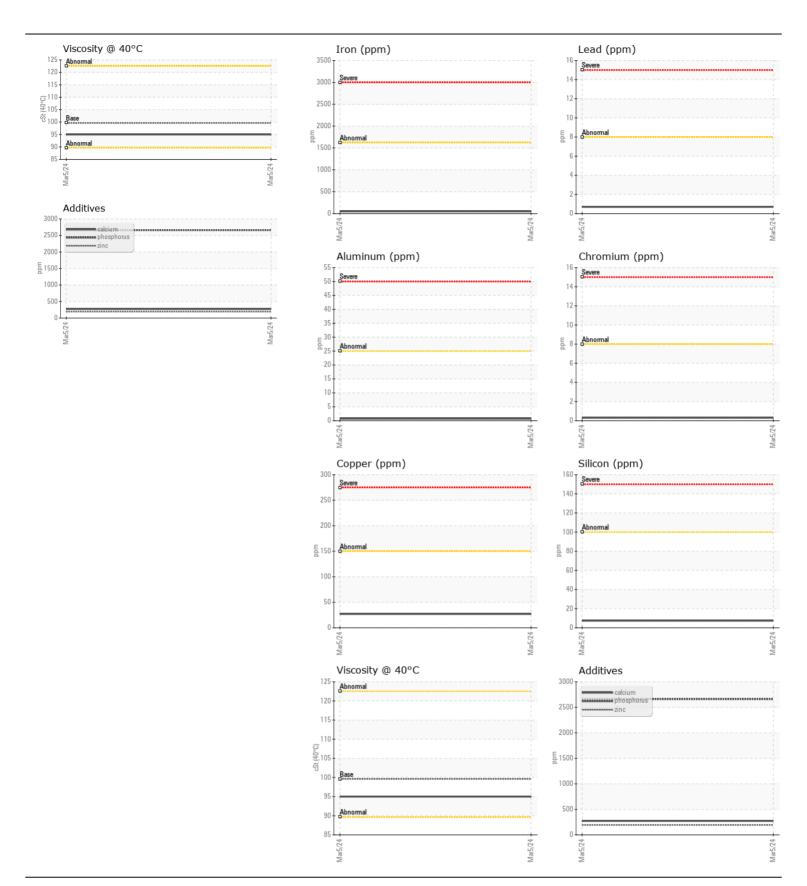
NORMAL NORMAL



LIEBHERR L586 059953-1334

Component Rear Left Wheel Hub

Test	PETRO CANADA TRAXON 75	W90 SYNTH	ETIC	(GAL	<u>)</u>			
Sample Number Client Info Client Info	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Sample Date Machine Age hrs Clent Info 7962 Machine Age hrs Clent Info 70 70 Filter Age hrs Clent Info 0 70 Filter Age hrs Clent Info 0 70 Filter Age hrs Clent Info 0 70 Filter Changed Clent Info Changed 70 Filter Changed Clent Info MA 70 70 70 Filter Changed Clent Info MA 70	Confirm the source of the lubricant being utilized for top-up/fill.	Sample Number		Client Info				
Note		Sample Date		Client Info		05 Mar 2024		
Filter Age		Machine Age	hrs	Client Info		7962		
Cilic hanged Cili		Oil Age	hrs	Client Info		0		
Filter Changed No Client Into No Chember No Chemb		Filter Age	hrs	Client Info		0		
Nome		Oil Changed		Client Info		Changed		
Iron		Filter Changed		Client Info		N/A		
All component wear rates are normal. Chromium ppm ASTM 05165m >4 <1		Sample Status				NORMAL		
Nickel ppm ASTILU (5185)m >4 <1 Titanium ppm ASTILU (5185)m >0 ASTILU (5185)m >0 ASTILU (5185)m >2 <1 AUDITION ASTILU (5185)m >2 <1 Lead ppm ASTILU (5185)m >2 <1 Lead ppm ASTILU (5185)m >2 <1 Copper ppm ASTILU (5185)m >6 <1 Copper ppm ASTILU (5185)m >6 <1 ASTILU (5185)m >6 <1 ASTILU (5185)m >6 <1 Tin ppm ASTILU (5185)m >10 1 ASTILU (5185)m >10 1 ASTILU (5185)m >10 0 Tin ppm ASTILU (5185)m >10 0 ASTI	WEAR	Iron	ppm	ASTM D5185(m)	>1625	49		
Nickel ppm ASTM0585(m) >4 <1 Titanium ppm ASTM0585(m) 0 Silver ppm ASTM0585(m) 25 <1 Aluminum ppm ASTM0585(m) >8 <1 Copper ppm ASTM0585(m) >8 <1 Tin ppm ASTM0585(m) >0 1 Vanadium ppm ASTM0585(m) >0 1 Vanadium ppm ASTM0585(m) >0 1 Valow Metal scalar Visual* NONE VLITE Vellow Metal scalar Visual* NONE NONE Valow Metal scalar Visual* NONE NONE Silt scalar Visual* NONE NONE Debris scalar Visual* NONE NONE Sand(Dirt scalar Visual* NONE NONE Appearance scalar Visual* NONE NONE Odor scalar Visual* NONE NONE Odor scalar Visual* NONE NONE Odor scalar Visual* NONE Odor scalar Visual* NONE Odor scalar Visual* NONE	All component wear rates are normal.	Chromium	ppm	ASTM D5185(m)	>8	<1		
Silver ppm ASTM DSISS 25 -1		Nickel	ppm	ASTM D5185(m)	>4	<1		
Aluminum ppm ASTM DS185(m) 2.5 c.1 .		Titanium	ppm	ASTM D5185(m)		0		
Lead		Silver	ppm	ASTM D5185(m)		0		
Copper		Aluminum	ppm	ASTM D5185(m)	>25	<1		
Tin		Lead	ppm	ASTM D5185(m)	>8	<1		
Vanadium ppm ASTM D5185(m) 0 White Metal scalar Visual* NONE VLITE Yellow Metal scalar Visual* NONE NONE There is no indication of any contamination in the oil. Silicon ppm ASTM D5185(m) >20 2 Water WC Method >0.2 NEG Silt scalar Visual* NONE NONE Sand/Dirt scalar Visual* NONE NONE Sand/Dirt scalar Visual* NONE NONE Appearance Scalar Visual* NONE NORML NORML NORML Odor scalar Visual* NORML NORML NORML Emulsified Water scalar Visual* NORML NORML Additive levels indicate the addition of a different brand, or type of oil. Boron ppm ASTM D5185(m) 3 3 Additive levels indicate the addition of the oil is acceptable for the time in service. Molybdenum ppm ASTM D5185(m) 1 0 Manganese ppm ASTM D5185(m) 7 273 Phosphorus ppm ASTM D5185(m) 1 4 Calcium ppm ASTM D5185(m) 1 4 Calcium ppm ASTM D5185(m) 1 4 Zinc ppm ASTM D5185(m) 11 5 2662 Sulfur ppm ASTM D5185(m) 11 12		Copper	ppm	ASTM D5185(m)	>150	27		
White Metal Scalar Visual* NONE VLITE Yellow Metal Scalar Visual* NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NON		Tin	ppm	ASTM D5185(m)	>10	1		
Yellow Metal scalar Visual* NONE N		Vanadium	ppm	ASTM D5185(m)		0		
Silicon ppm ASTM D5185(m) >100 7		White Metal	scalar	Visual*	NONE	VLITE		
Potassium ppm ASTM D5185(m) >20 2		Yellow Metal	scalar	Visual*	NONE	NONE		
Potassium ppm ASTM D5185(m) >20 2	CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>100	7		
Water WC Method >0.2 NEG Silt scalar Visual* NONE NONE Debris scalar Visual* NONE NONE Debris scalar Visual* NONE NONE Sand/Dirt scalar Visual* NONE NONE Appearance scalar Visual* NORML NORML NORML Odor scalar Visual* NORML NORML NORML Emulsified Water scalar Visual* NORML NORML Emulsified Water scalar Visual* NORML NORM		Potassium	ppm	ASTM D5185(m)	>20	2		
Debris Scalar Visual* NONE NORML NORML		Water		WC Method	>0.2	NEG		
Sand/Dirt scalar Visual* NONE NONE NONE Appearance scalar Visual* NORML		Silt	scalar	Visual*	NONE	NONE		
Appearance Scalar Visual* NORML NORM		Debris	scalar	Visual*	NONE	NONE		
Odor scalar Visual* NORML NORML Emulsified Water scalar Visual* >0.2 NEG NEG NEG		Sand/Dirt	scalar	Visual*	NONE	NONE		
Emulsified Water scalar Visual* >0.2 NEG		Appearance	scalar	Visual*	NORML	NORML		
Sodium ppm ASTM D5185(m) 3		Odor	scalar	Visual*	NORML	NORML		
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) 1 0 Manganese ppm ASTM D5185(m) 1 4 Calcium ppm ASTM D5185(m) 7 273 Phosphorus ppm ASTM D5185(m) 1145 2662 Zinc ppm ASTM D5185(m) 3 194 Sulfur ppm ASTM D5185(m) 17909 20037		Emulsified Water	scalar	Visual*	>0.2	NEG		
The condition of the oil is acceptable for the time in service. Barium ppm ASTM D5185(m) 1 0 Molybdenum ppm ASTM D5185(m) 1 1 Magnesium ppm ASTM D5185(m) 1 4 Calcium ppm ASTM D5185(m) 7 273 Phosphorus ppm ASTM D5185(m) 1145 2662 Zinc ppm ASTM D5185(m) 3 194 Sulfur ppm ASTM D5185(m) 17909 20037	FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		3		
The condition of the oil is acceptable for the time in service. Barium ppm ASTM D5185(m) 1 0 Molybdenum ppm ASTM D5185(m) 1 0 Manganese ppm ASTM D5185(m) 1 4 Calcium ppm ASTM D5185(m) 7 273 Phosphorus ppm ASTM D5185(m) 1145 2662 Zinc ppm ASTM D5185(m) 3 194 Sulfur ppm ASTM D5185(m) 17909 20037	Additive levels indicate the addition of a different brand, or type of oil.	Boron	ppm	ASTM D5185(m)	328	34		
Manganese ppm ASTM D5185(m) 1 Magnesium ppm ASTM D5185(m) 1 4 Calcium ppm ASTM D5185(m) 7 273 Phosphorus ppm ASTM D5185(m) 1145 2662 Zinc ppm ASTM D5185(m) 3 194 Sulfur ppm ASTM D5185(m) 17909 20037		Barium	ppm	ASTM D5185(m)	1	0		
Magnesium ppm ASTM D5185(m) 1 4 Calcium ppm ASTM D5185(m) 7 273 Phosphorus ppm ASTM D5185(m) 1145 2662 Zinc ppm ASTM D5185(m) 3 194 Sulfur ppm ASTM D5185(m) 17909 20037		Molybdenum	ppm	ASTM D5185(m)		0		
Calcium ppm ASTM D5185(m) 7 273 Phosphorus ppm ASTM D5185(m) 1145 2662 Zinc ppm ASTM D5185(m) 3 194 Sulfur ppm ASTM D5185(m) 17909 20037		Manganese	ppm	ASTM D5185(m)		1		
Phosphorus ppm ASTM D5185(m) 1145 2662 Zinc ppm ASTM D5185(m) 3 194 Sulfur ppm ASTM D5185(m) 17909 20037		Magnesium	ppm	ASTM D5185(m)	1	4		
Zinc ppm ASTM D5185(m) 3 194 Sulfur ppm ASTM D5185(m) 17909 20037		Calcium	ppm	ASTM D5185(m)	7	273		
Sulfur ppm ASTM D5185(m) 17909 20037		Phosphorus	ppm	ASTM D5185(m)	1145	2662		
			ppm	ASTM D5185(m)	3	194		
Visc @ 40°C cSt ASTM D7279(m) 99.6 95.0								
		Visc @ 40°C	cSt	ASTM D7279(m)	99.6	95.0		





CALA ISO 17025:2017 Accredited

Laboratory

Laboratory Sample No.

Lab Number : 02620663 Unique Number : 5737773

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 : LH0270303

Tested Diagnosed Test Package : MOB 1

: 07 Mar 2024 Received : 07 Mar 2024

: 08 Mar 2024 - Kevin Marson

RR # 2, 9094 CAVANAGH ROAD

ASHTON, ON CA K0A 1B0 Contact: Keith

THOMAS CAVANAGH CONSTRUCTION LTD

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.

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