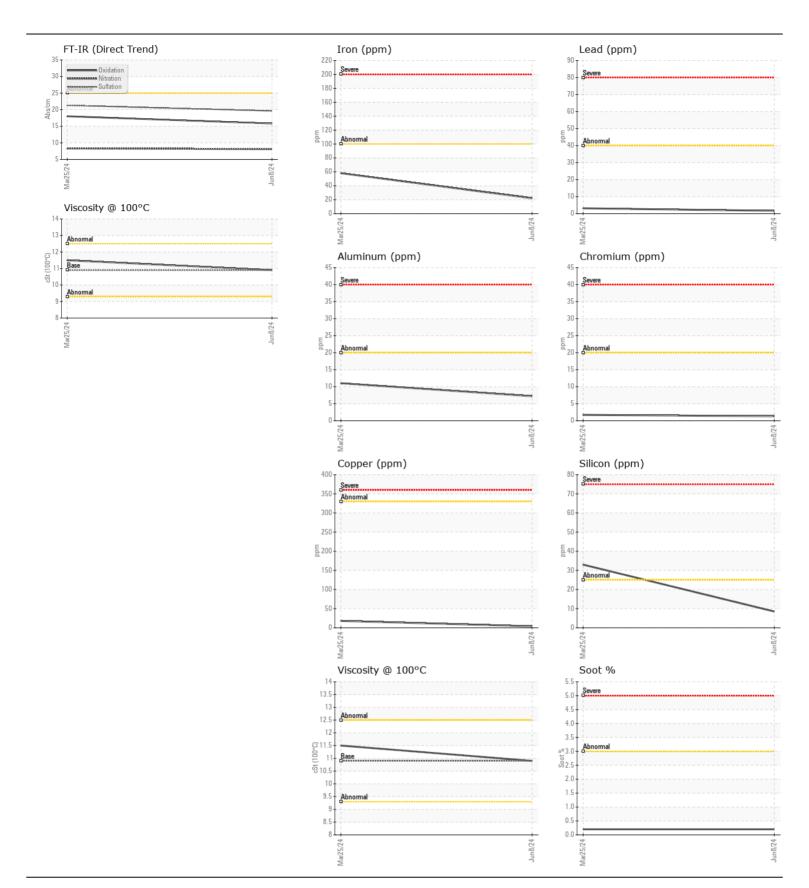
**WEAR** CONTAMINATION **FLUID CONDITION** 

**NORMAL NORMAL NORMAL** 

Machine Id 51990

Component Diesel Engine

DIESEL ENGINE OIL SAE 10W30 ( LTR)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Number		Client Info		WC0935007	WC0915521	
	Sample Date		Client Info		08 Jun 2024	25 Mar 2024	
	Machine Age	kms	Client Info		88436	46542	
	Oil Age	kms	Client Info		0	42760	
	Filter Age	kms	Client Info		0	42760	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185(m)	>100	22	58	
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185(m)		1	2	
	Nickel	ppm	ASTM D5185(m)		<1	<1	
	Titanium	ppm	ASTM D5185(m)		0	<1	
	Silver	ppm	ASTM D5185(m)	>3	<1	0	
	Aluminum	ppm	ASTM D5185(m)	>20	7	11	
	Lead	ppm	ASTM D5185(m)	>40	2	3	
	Copper	ppm	ASTM D5185(m)	>330	4	18	
	Tin	ppm	ASTM D5185(m)	>15	1	3	
	Vanadium	ppm	ASTM D5185(m)		0	0	
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	8	33	
Elevated aluminum (AI) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)		13	44	
	Fuel		WC Method		<1.0	0.8	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	ASTM D7844*	>3	0.2	0.2	
	Nitration	Abs/cm	ASTM D7624*	>20	8.1	8.3	
	Sulfation	Abs/.1mm	ASTM D7415*	>30	19.6	21.3	
	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		2	5	
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)	250	8	56	
	Barium	ppm	ASTM D5185(m)	10	<1	5	
	Molybdenum	ppm	ASTM D5185(m)	100	61	63	
	Manganese	ppm	ASTM D5185(m)		1	4	
	Magnesium	ppm	ASTM D5185(m)	450	911	458	
	Calcium	ppm	ASTM D5185(m)	3000	1122	1730	
	Phosphorus	ppm	ASTM D5185(m)	1150	986	922	
	Zinc	ppm	ASTM D5185(m)	1350	1197	1142	
	Sulfur	ppm	ASTM D5185(m)	4250	2413	2327	
	Oxidation	Abs/.1mm	ASTM D7414*	>25	15.8	18.0	
	Visc @ 100°C	cSt	ASTM D7279(m)	10.9	10.9	11.5	





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: WC0935007 Lab Number : 02645796 Unique Number : 5803335 Test Package : MOB 1

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received : 05 Jul 2024 **Tested** : 05 Jul 2024

Diagnosed : 05 Jul 2024 - Wes Davis

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.

**MANITOULIN TRANSPORT** 

75 MUMFORD ROAD LIVELY, ON **CA P3Y 1L1** 

Contact: Todd Smith tosmith@manitoulintransport.com T: (705)562-3302

F: x: