

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

52000 series

356

Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

WEAR	

All component wear rates are normal.

CONTAMINATION

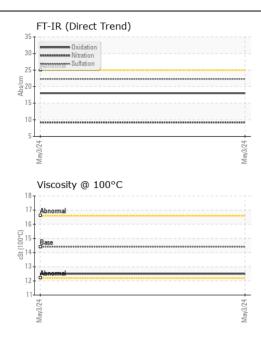
There is no indication of any contamination in the oil.

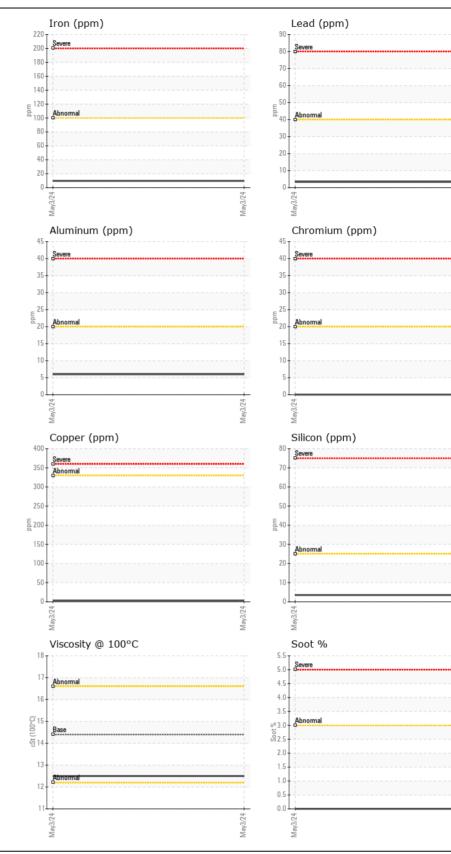
FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0904866		
Sample Date		Client Info		03 May 2024		
Machine Age	mls	Client Info		150229		
Oil Age	mls	Client Info		0		
Filter Age	mls	Client Info		0		
Oil Changed		Client Info		Changed		
Filter Changed		Client Info		Changed		
Sample Status				NORMAL		
			400	40		
Iron	ppm	ASTM D5185(m)	>100	10		
Chromium	ppm	ASTM D5185(m)	>20	0		
Nickel	ppm	ASTM D5185(m)	>4	0		
Titanium	ppm	ASTM D5185(m)	0	<1		
Silver	ppm	ASTM D5185(m)	>3	0		
Aluminum	ppm	ASTM D5185(m)	>20	6		
Lead	ppm	ASTM D5185(m)	>40	3		
Copper	ppm	ASTM D5185(m)	>330	2		
Tin	ppm	ASTM D5185(m)	>15	<1		
Vanadium	ppm	ASTM D5185(m)		0		
Silicon	ppm	ASTM D5185(m)	>25	4		
Potassium	ppm	ASTM D5185(m)	>20	<1		
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
Soot %	%	ASTM D7844*	>3	0		
Nitration	Abs/cm	ASTM D7624*	>20	9.2		
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.3		
Emulsified Water	scalar	Visual*	>0.2	NEG		
Codium			. 150	•		
Sodium	ppm	ASTM D5185(m) ASTM D5185(m)	>158	2		
Boron	ppm			169		
Barium	ppm	ASTM D5185(m)	10	0		
Molybdenum	ppm	ASTM D5185(m)	100	101		
Manganese	ppm	ASTM D5185(m)	450	<1		
Magnesium Calcium	ppm	ASTM D5185(m)	450	703		
	ppm	ASTM D5185(m)	3000	1392		
Phosphorus	ppm	ASTM D5185(m)	1150	778 890		
Zinc	ppm	ASTM D5185(m)	1350	889		
Sulfur	ppm	ASTM D5185(m)	4250	2204		
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.0		
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	12.5		

Contact/Location: Todd Smith - MANLIV







Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. Received : WC0904866 : 14 May 2024 Lab Number : 02635198 Tested : 14 May 2024 ISO 17025:2017 Accredited Laboratory Diagnosed Unique Number : 5776351 : 14 May 2024 - Wes Davis Test Package : MOB 1 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:

Contact/Location: Todd Smith - MANLIV Page 2 of 2