

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

SAMBRO DFOL/RPSS [134539]

74254187

Diesel Engine

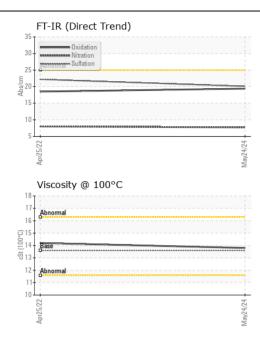
VALVOLINE 15W40 (--- GAL)

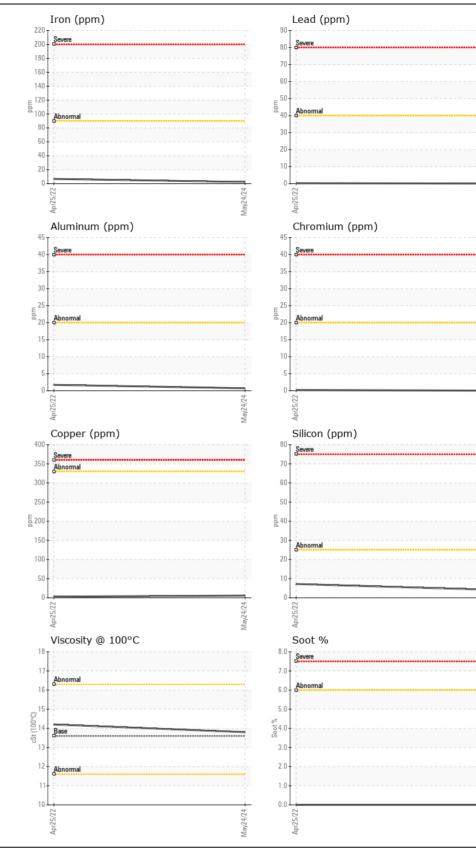
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		CU0021736	CU0019174	
	Sample Date		Client Info		24 May 2024	25 Apr 2022	
	Machine Age	hrs	Client Info		324	201	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR Metal levels are typical for a new component breaking in.	Iron	ppm	ASTM D5185(m)	>90	2	7	
	Chromium	ppm	ASTM D5185(m)	>20	0	<1	
	Nickel	ppm	ASTM D5185(m)	>2	0	<1	
	Titanium	ppm	ASTM D5185(m)	>2	0	<1	
	Silver	ppm	ASTM D5185(m)	>2	0	0	
	Aluminum	ppm	ASTM D5185(m)	>20	<1	2	
	Lead	ppm	ASTM D5185(m)	>40	0	<1	
	Copper	ppm	ASTM D5185(m)	>330	6	3	
	Tin	ppm	ASTM D5185(m)	>15	0	<1	
	Vanadium	ppm	ASTM D5185(m)		0	0	
	White Metal	scalar	Visual*	NONE	NONE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	4	7	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185(m)	>20	<1	5	
	Fuel		WC Method	>3.0	<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	ASTM D7844*	>6	0	0	
	Nitration	Abs/cm	ASTM D7624*	>20	7.7	8.0	
	Sulfation	Abs/.1mm	ASTM D7415*	>30	20.1	22.2	
	Silt	scalar	Visual*	NONE	NONE		
	Debris	scalar	Visual*	NONE	VLITE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
	Appearance	scalar	Visual*	NORML	NORML		
	Odor	scalar	Visual*	NORML	NORML	NORML	
	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		3	4	
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)	39	42	70	
	Barium	ppm	ASTM D5185(m)		0	<1	
	Molybdenum	ppm	ASTM D5185(m)		45	46	
	Manganese	ppm	ASTM D5185(m)		<1	<1	
	Magnesium	ppm	ASTM D5185(m)		795	642	
	Calcium	ppm	ASTM D5185(m)	1554	1155	1553	
	Phosphorus	ppm	ASTM D5185(m)	899	731	1094	
	Zinc	ppm	ASTM D5185(m)	1069	816	1218	
	Sulfur	ppm	ASTM D5185(m)	2624	1914	2780	
	Oxidation	Abs/.1mm	ASTM D7414*	>25	19.4	18.5	

Visc @ 100°C cSt ASTM D7279(m) 13.6

14.2

13.8





CUMMINS DIESEL Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Ξî Sample No. Received : 05 Jun 2024 **50 SIMMONDS DRIVE** : CU0021736 Lab Number : 02639750 Tested DARTMOUTH, NS : 05 Jun 2024 ISO 17025:2017 Accredited Laboratory Unique Number : 5788912 Diagnosed : 06 Jun 2024 - Kevin Marson CA B3B 1R3 Test Package : MOB 1 (Additional Tests: Visual) Contact: Stephen Hulse To discuss this sample report, contact Customer Service at 1-800-268-2131. stephen.hulse@cummins.com T: (782)409-4641 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. F: (902)468-5177 Validity of results and interpretation are based on the sample and information as supplied.

Contact/Location: Stephen Hulse - CUMDAR Page 2 of 2