

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id OE1021 Component Diesel Engine Fluid SAE 5W40 (--- GAL)

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SAE 5W40 (GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		PC0078311	PC0042297	
	Sample Date		Client Info		22 Feb 2024	13 Jan 2021	
	Machine Age	hrs	Client Info		961	422	
	Oil Age	hrs	Client Info		0	120	
	Filter Age	hrs	Client Info		0	120	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185(m)	>100	18	7	
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185(m)	>20	1	<1	
	Nickel	ppm	ASTM D5185(m)	>4	<1	<1	
	Titanium	ppm	ASTM D5185(m)		0	0	
	Silver	ppm	ASTM D5185(m)	>3	0	0	
	Aluminum	ppm	ASTM D5185(m)	>20	15	10	
	Lead	ppm	ASTM D5185(m)	>40	0	0	
	Copper	ppm	ASTM D5185(m)	>330	2	1	
	Tin	ppm	ASTM D5185(m)	>15	0	0	
	Vanadium	ppm	ASTM D5185(m)		0	0	
CONTAMINATION	Silicon		ASTM D5185(m)	>25	6	7	
	Potassium	ppm	ASTM D5185(m)		0 <1	<1	
There is no indication of any contamination in the oil.	Fuel	ppm	WC Method		<1.0	0.7	
	Water		WC Method		NEG	NEG	
	Glycol		WC Method	, 0.1	NEG	NEG	
	Soot %	%	ASTM D7844*	>3	0	0	
	Nitration	Abs/cm	ASTM D7624*	>20	10.5	9.0	
	Sulfation	Abs/.1mm	ASTM D7415*	>30	20.6	18.2	
	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185(m)		4	3	
The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185(m)		38	51	
	Barium	ppm	ASTM D5185(m)		0	0	
	Molybdenum	ppm	ASTM D5185(m)		58	70	
	Manganese	ppm	ASTM D5185(m)		0	<1	
	Magnesium	ppm	ASTM D5185(m)		892	22	
	Calcium	ppm	ASTM D5185(m)		1050	2080	
	Phosphorus	ppm	ASTM D5185(m)		1023	955	
	Zinc	ppm	ASTM D5185(m)		1183	1141	
	Sulfur	ppm	ASTM D5185(m)		3011	3227	
	Oxidation	Abs/.1mm	ASTM D7414*	>25	19.9	13.8	
	Visc @ 40°C	cSt	ASTM D7279(m)		76.6	68.3	

Visc @ 100°C cSt

Viscosity Index (VI) Scale ASTM D2270*

ASTM D7279(m)

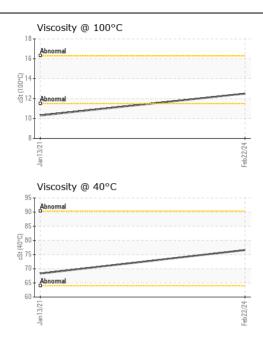
Contact/Location: Shannon Abbott - GFL286

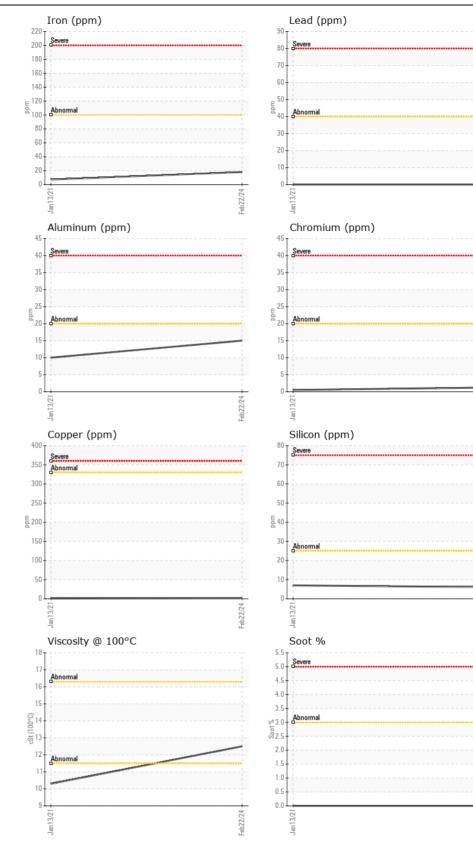
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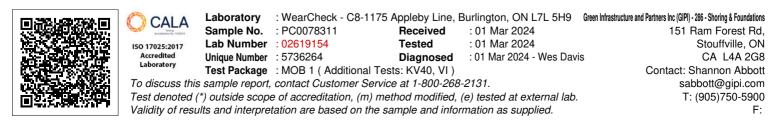
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12.5

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