

OIL ANALYSIS REPORT

Sample Rating Trend



Area [44952762] 9755 Component Diesel Engine Fluid SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Wear

Metal levels are typical for a new component breaking in.

Contamination

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.

Fluid Condition

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

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0924060		
Sample Date		Client Info		09 Jun 2024		
Machine Age	kms	Client Info		54423		
Oil Age	kms	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATION	٨	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	23		
Chromium	ppm	ASTM D5185(m)	>20	<1		
Nickel	ppm	ASTM D5185(m)	>2	<1		
Titanium	ppm	ASTM D5185(m)	>2	0		
Silver	ppm	ASTM D5185(m)	>2	0		
Aluminum	ppm	ASTM D5185(m)	>20	5		
Lead	ppm	ASTM D5185(m)	>40	0		
Copper	ppm	ASTM D5185(m)	>330	1		
Tin	ppm	ASTM D5185(m)	>15	0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		42		
Barium	ppm	ASTM D5185(m)		<1		
Molybdenum	ppm	ASTM D5185(m)		2		
Manganese	ppm	ASTM D5185(m)		<1		
Magnesium	ppm	ASTM D5185(m)		708		
Calcium	ppm	ASTM D5185(m)		1292		
Phosphorus	ppm	ASTM D5185(m)		652		
Zinc	ppm	ASTM D5185(m)		752		
Sulfur	ppm	ASTM D5185(m)		2413		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	4		
Sodium	ppm	ASTM D5185(m)	>228	2		
Potassium	ppm	ASTM D5185(m)	>20	10		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0.6		
Nitration	Abs/cm	ASTM D7624*	>20	10.9		
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.2		



Abnormal

35

31

25 Aps/cm 20

15 10

80 Abnormal

75 70 cst (40°C) 29 c2 B

55 50 Abnorma 45

FT-IR (Direct Trend)

Oxidation

Nitration Sulfation

Viscosity @ 40°C

Viscosity @ 40°C

⁸⁰ T Abnormal 75 70 cst (40°C) 29 c2 Bas

55 50 Abnormal

45 Jun9/24

OIL ANALYSIS REPORT

	FLUID DEGRADATION		method limit/base		current	history1	history2
	Oxidation	Abs/.1mm	ASTM D7414*	>25	18.0		
	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	Visual*	NONE	VLITE		
	Yellow Metal	scalar	Visual*	NONE	NONE		
	Precipitate	scalar	Visual*	NONE	NONE		
9/24	Silt	scalar	Visual*	NONE	NONE		
Jun9/24	Debris	scalar	Visual*	NONE	NONE		
	Sand/Dirt	scalar	Visual*	NONE	NONE		
	Appearance	scalar	Visual*	NORML	NORML		
	Odor	scalar	Visual*	NORML	NORML		
	Emulsified Water	scalar	Visual*	>0.2	NEG		
	Free Water	scalar	Visual*		NEG		
	FLUID PROPERT	IES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D7279(m)	65.0	73.8		
/24	Visc @ 100°C	cSt	ASTM D7279(m)	11.0	11.1		
Jun9/24	Viscosity Index (VI)	Scale	ASTM D2270*	161	140		
	GRAPHS						
	Iron (ppm)				Lead (ppm)		
	300			10	Severe		
	200 - Severe			u dd	50 - Abnormal		
	100 - Abnormal						
	0						
	Jun9/24			Jun9/24	Jun9/24		-
VC	-			7	-	,	
10.01	Aluminum (ppm)				Chromium (pp	m)	
	40 Severe				10 - Severe		
	Abnormal			mdd	Abnormal		
	04			/24 -	74		, C
	Jun9/24			Jun9/24	Jun9/24		-
	Copper (ppm)				Silicon (ppm)		
	400 Severe				30 Severe		
	300				50		
	Ē 200 - 100			4	Abnormal		
					0		
				Jun9/24 -	Jun9/24 -		2
	/6						d
	Jun9,24			Jun	Jur		
	Viscosity @ 100°C				Soot %		-
	Viscosity @ 100°C			8	Soot %		
	Viscosity @ 100°C			8	Soot %		-
	Viscosity @ 100°C			6 8 8 10 8 10 8	Soot %		
	Viscosity @ 100°C			8 6 8 8 4 8 8 2 2	Soot % Abnormal		
	Viscosity @ 100°C			8 6 8 8 4 8 8 2 2	Soot % Abnormal		
	Viscosity @ 100°C			6 6 104 104 2	Soot %		
	Viscosity @ 100°C			8 6 6 7 8 8 8 8 8 8 8 9 4 9 4 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1	Soot % Severe Abnormal 0 4 4 4 4 4 4 4 4 4 4 4 4 4		
atory e No	Viscosity @ 100°C	5 Appleby		gton, ON L7	Soot % Severe Abnormal 0 4 4 4 4 4 4 4 4 4 4 4 4 4		Truck Centre
atory e No. umber	Viscosity @ 100°C		ved : 25	8 6 6 7 8 8 8 8 8 8 8 9 4 9 4 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1	Soot % Severe Abnormal 0 4 4 4 4 4 4 4 4 4 4 4 4 4	74	Truck Centre
e No. umber	Viscosity @ 100°C	5 Appleby Recei	ved : 25 d : 25	gton, ON L7 5 Jun 2024	Soot % Severe Abnormal 0 4 2 4 2 4 2 4 4 4 4 4 4 4 4 4 4 4 4 4	74	

Test Package : MOB 1 (Additional Tests: KV40, VI, Visual) 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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