

## **OIL ANALYSIS REPORT**



## Machine Id **9831** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL 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

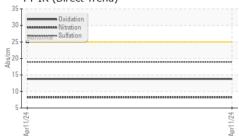
The condition of the oil is acceptable for the time in service.

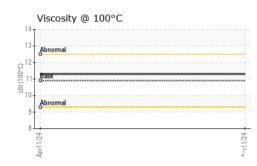
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0853268		
Sample Date		Client Info		11 Apr 2024		
Machine Age	kms	Client Info		52704		
Oil Age	kms	Client Info		2028		
Oil Changed		Client Info		Not Changd		
Sample Status				NORMAL		
CONTAMINATION	N	method	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	15		
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	2		
Tin	ppm	ASTM D5185(m)	>15	<1		
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)	250	75		
Barium	ppm	ASTM D5185(m)	10	<1		
Molybdenum	ppm	ASTM D5185(m)	100	7		
Manganese	ppm	ASTM D5185(m)		<1		
Magnesium	ppm	ASTM D5185(m)	450	699		
Calcium	ppm	ASTM D5185(m)	3000	1358		
Phosphorus	ppm	ASTM D5185(m)	1150	716		
Zinc	ppm	ASTM D5185(m)	1350	799		
Sulfur	ppm	ASTM D5185(m)	4250	2469		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	7		
Sodium	ppm	ASTM D5185(m)		3		
Potassium	ppm	ASTM D5185(m)	>20	12		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0.1		
Nitration	Abs/cm	ASTM D7624*	>20	8.2		
Sulfation	Abs/.1mm	ASTM D7415*	>30	18.9		



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						history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.8		
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
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		
Emulsified Water	scalar	Visual*	>0.2	NEG		
Free Water	scalar	Visual*		NEG		
FLUID PROPERT	IES	method	limit/base	current	history1	history2
/isc @ 100°C	cSt	ASTM D7279(m)	10.9	11.3		
GRAPHS						
Iron (ppm)			100	Lead (ppm)		
Severe			80	Severe		
Abnormal			등 60 문 40	Abnormal		
			- 40 20			
			o	I		
Apr11/24			Apr11/24	Apr11/24		
			Apr			
Aluminum (ppm)			50	Chromium (p	om)	
- Severe			40			
Abnormal			<sup>30</sup>	Abnormal		
)+						
			o			
Apr11/24			Apr11/24	Apr11/24		
			Apr			
Copper (ppm)			80	Silicon (ppm)		
Aprioritia			60			
) + .			Ē.40			
			음 <sup>+0</sup> 20	Abnormal		
)			20			
			Apr11/24	1/24		
Apr11/24			Apr1	Apr1		
Viscosity @ 100°C				Soot %		
Abnormal				Abnormal		
Abnormal			6.0 ع <sup>و</sup>	T		
Base Abnormal			** to 4.0			
Abnormal			2.0			
Apr11/24			0.0			
			Apr11/24	Apr11/24		

: 17 Apr 2024

: 17 Apr 2024

: 17 Apr 2024 - Wes Davis

Received

Diagnosed

Tested

FLUID DEGRADATION method limit/base current history1 history2



Accredited Laboratory Unique Number : 5762585 Test Package : MOB 1 (Additional Tests: 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. Contact/Location: Serdar Okur - RUSMIS

7450 Torbram Rd. Mississauga, ON CA L4T 1G9 Contact: Serdar Okur sokur@rushtruckcentres.ca T: (905)671-7600 F:

Report Id: RUSMIS [WCAMIS] 02629453 (Generated: 04/17/2024 14:36:25) Rev: 1

CALA

ISO 17025:2017

Laboratory

Sample No. : WC0853268

Lab Number : 02629453

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