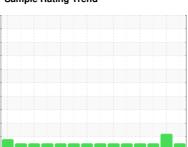


## **OIL ANALYSIS REPORT**

## Sample Rating Trend



NORMAL



# Area [41022214] Machine Id T9421

Component **Diesel Engine** 

**DIESEL ENGINE OIL SAE 10W30 (--- GAL)** 

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

Elevated aluminum (Al) 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

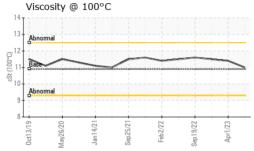
### **Fluid Condition**

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

Oxiz013 May2020 Jan2021 Sap2021 Feb2022 Sap2022 Apr2023							
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		WC0853321	WC0796645	WC0702878	
Sample Date		Client Info		27 Aug 2023	01 Apr 2023	18 Dec 2022	
Machine Age	kms	Client Info			490699	425055	
Oil Age	kms	Client Info	0		0	0	
Oil Changed		Client Info	Not Changd		Changed	Changed	
Sample Status				NORMAL	ABNORMAL	NORMAL	
CONTAMINATION	1	method	limit/base	current	history1	history2	
Fuel		WC Method	>2.0	<1.0	<b>A</b> 3	<1.0	
Glycol		WC Method		NEG	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>100	25	57	19	
Chromium	ppm	ASTM D5185(m)	>20	1	4	1	
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	0	
Titanium	ppm	ASTM D5185(m)		0	<1	<1	
Silver	ppm	ASTM D5185(m)	>3	<1	0	0	
Aluminum	ppm	ASTM D5185(m)	>20	9	8	3	
Lead	ppm	ASTM D5185(m)	>40	5	5	4	
Copper	ppm	ASTM D5185(m)	>330	1	4	<1	
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1	
Antimony	ppm	ASTM D5185(m)		0	0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	0	
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	250	32	22	27	
Barium	ppm	ASTM D5185(m)	10	0	0	0	
Molybdenum	ppm	ASTM D5185(m)	100	4	4	4	
Manganese	ppm	ASTM D5185(m)		<1	1	<1	
Magnesium	ppm	ASTM D5185(m)	450	726	719	764	
Calcium	ppm	ASTM D5185(m)	3000	1332	1410	1465	
Phosphorus	ppm	ASTM D5185(m)	1150	720	747	770	
Zinc	ppm	ASTM D5185(m)	1350	770	794	817	
Sulfur	ppm	ASTM D5185(m)	4250	2480	2534	2590	
Lithium	ppm	ASTM D5185(m)		<1	<1	<1	
CONTAMINANTS		method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	5	8	5	
Sodium	ppm	ASTM D5185(m)		3	5	3	
Potassium	ppm	ASTM D5185(m)	>20	19	4	6	
INFRA-RED		method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	0.2	0.5	0.1	
Nitration	Abs/cm	ASTM D7624*	>20	11.4	13.5	10.6	
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.5	31.7	25.8	
FLUID DEGRADA	TION	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	21.7	27.1	21.0	



## **OIL ANALYSIS REPORT**



VISUAL		method				history2	
Emulsified Water scalar		Visual*	>0.2	NEG	NEG	NEG	
Free Water	scalar	Visual*		NEG	NEG	NEG	
FLUID PROPERTIES		method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	11.0	<u></u> 11.4	11.5	
GRAPHS							

Visc @ 100°C	cSt	ASTM D7279(m)	10.9	11.0		11.4		11.5	
GRAPHS									
Iron (ppm)  250 200 Severe 150 100 Abnormal			^	Lead (p) 80 Severe 70 60 Abnormal 30 10	om)				
Oct13/19-	Sep25/21-	Sep19/22 -	Apr1/23	Oct13/19-	Jan14/21-	Sep25/21-	Feb2/22	Sep19/22	Apr1/23
Aluminum (ppm)  Severe  35 30 Abnomal	Sep 25/21 - Sep Feb 2/22 - Feb 2/22 - Fe	Sep19/22	April23 A	Chromiu  45 40 35 30 30 40 45 40 35 30 40 40 50 40 45 40 40 40 40 40 40 40 40 40 40 40 40 40	im (ppm		Feb 2/22 - \	Sep19/22	Apr1/23 - > A
Copper (ppm)  400 350 Severe Abnormal 300 250 E 200 150 0				Silicon (  80 Severe  70 60  50 Abnormal  20 Abnormal	ppm)				
Oct13/19 May26/20 Jan14/21	Sep25/21.	Sep19/22	Apr1/23	Oct13/19 May26/20	Jan14/21	Sep25/21	Feb2/22	Sep19/22	Apr1/23
Viscosity @ 100°C				Soot % 5.0 Severe 4.0 4.0 Abnormal 2.0					
3/19	2/22	9/22 -	1/23+	3/19 0.0	4/21	25/21	2/22	9/22	1/23



**CALA** ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number : 5632307 Test Package : MOB 1

: WC0853321 : 02579247

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received

: 30 Aug 2023 Diagnosed : 30 Aug 2023

Diagnostician : Wes Davis

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.

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