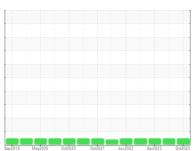


OIL ANALYSIS REPORT



Sample Rating Trend





Area [4166856] 9533 Component

Diesel Engine

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

Recommendation

Resample at the next service interval to monitor.

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

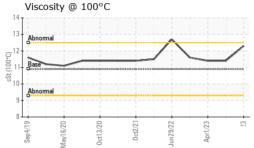
Fluid Condition

The condition of the oil is acceptable for the time in

		Sep2019 N	Лау2020 Осt2020	Oct2021 Jun2022 Apr2023	Oct2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0853346	WC0796221	WC0796644
Sample Date		Client Info		07 Oct 2023	17 Jun 2023	01 Apr 2023
Machine Age	kms	Client Info		513157	475879	462483
Oil Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status			NORMAL		NORMAL	NORMAL
CONTAMINATION		method	limit/base current		history1	history2
Fuel		WC Method	>2.0	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	63	16	33
Chromium	ppm	ASTM D5185(m)	>20	2	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	17	4	7
Lead	ppm	ASTM D5185(m)	>40	<1	<1	0
Copper	ppm	ASTM D5185(m)	>330	3	2	2
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	<1
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	35	45	30
Barium	ppm	ASTM D5185(m)	10	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	100	26	2	4
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	770	758	783
Calcium	ppm	ASTM D5185(m)	3000	1478	1328	1524
Phosphorus	ppm	ASTM D5185(m)	1150	727	751	786
Zinc	ppm	ASTM D5185(m)	1350	850	803	828
Sulfur Lithium	ppm	ASTM D5185(m) ASTM D5185(m)	4250	2454	2527	2644
	ppm	()		<1	<1	<1
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	10	5	6
Sodium	ppm	ASTM D5185(m)		5	3	3
Potassium	ppm	ASTM D5185(m)	>20	26	6	7
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	8.0	0.3	0.5
Nitration	Abs/cm	ASTM D7624*	>20	14.0	11.1	13.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	27.7	20.8	27.2
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	24.9	16.6	21.5



OIL ANALYSIS REPORT



VISUAL		method	limit/base	current	history1	history2	
Emulsified Water scalar		Visual*	>0.2	NEG	NEG	NEG	
Free Water scala		Visual*		NEG	NEG	NEG	
FLUID PROPERTIES		method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	12.3	11.4	11.4	
GRAPHS							

. '	/isc @ 100°C	cSt	ASTM D/2/9(m)	10.9	12.3	11	1.4		11.4		
_	GRAPHS										
3 250	Iron (ppm)			Lead (ppm)							
250	0				80 Severe						
200	Severe				70						
150 E											
100	Abnormal				Abnormal	1					
50					20						
0					10						
	Sep4/19. May16/20.	Oct2/21.	Jun29/22 -	0ct7/23	Sep4/19	Oct13/20	0ct2/21.	Jun29/22	Apr1/23	Oct7/23	
	≥ ∪		Jun	ŏ	≥		Ö	Jun	Αp	ŏ	
50	Aluminum (ppm	1)			Chromium	Chromium (ppm)					
40	Severe				40 - Severe		-				
					30						
MG 30	. \				Abnormal						
20	Abnormal			1	15	-,,					
10		\ /	\neg	/	10						
0			3 2	2	0		-	2		3	
	Sep 4/19 May16/20 Oct13/20	Oct2/21	Jun29/22 Apr1/23	0ct7/23	Sep4/19	0ct13/20	Oct2/21	Jun29/22	Apr1/23	Oct7/23	
	Copper (ppm)		7		Silicon (pp			Ť			
400	Severe				80 Severe						
350 300	Abnomal				70 60						
250					50-						
를 200	+				E 40						
150 100					Abnormal						
50					10-	_/	/_	_			
0	/719	0ct2/21-	un29/22	0ct7/23	V30	1/20	0ct2/21-	1/22	/23	Oct7/23	
	Sep4/19-	Oct	Jun29/22 Apr1/23	Oct/	Sep4/19	Oct13/20	Oct	Jun29/22	Apr1/23	0ct)	
	Viscosity @ 100	°C			Soot %						
14					5.0 Severe						
13	Abnormal		\wedge		4.0						
(100°C) (2) (110°C)	Base		/ _		Abnormal						
₹5 10	- Control of the Cont				2.0		-				
9	Abnormal				1.0						
8					0.0					-	
	ep4/19 y16/20	0ct2/21-	n29/22 -)ct7/23	ep4/19	:13/20	Oct2/21.	n29/22	, pr1/23	oct7/23	



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number Unique Number : 5658580 Test Package : MOB 1

: WC0853346 : 02589514

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

: 17 Oct 2023 Diagnosed : 17 Oct 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