

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

526089 FREIGHTLINER CASCADIA 125

Component

Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

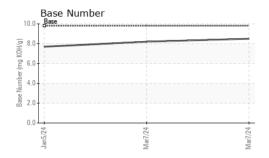
Fluid Condition

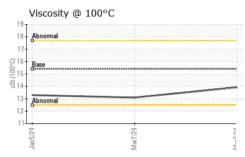
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Client Info	iAL)		Jan	2024	Mar2024 Mar20	24	
Client Info	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 0 0 0 0 0 0 0 0	Sample Number		Client Info		GFL0115308	GFL0115307	GFL0066598
Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Client Info N/A N/A N/A N/A N/A Eucl WC Method >5 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 </td <td>Sample Date</td> <td></td> <td>Client Info</td> <td></td> <th>07 Mar 2024</th> <td>07 Mar 2024</td> <td>05 Jan 2024</td>	Sample Date		Client Info		07 Mar 2024	07 Mar 2024	05 Jan 2024
Colient Info	Machine Age	hrs	Client Info		0	0	3
NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 history2	Oil Age	hrs	Client Info		0	0	0
CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0	Oil Changed		Client Info		N/A	N/A	N/A
Fuel	Sample Status				NORMAL	NORMAL	NORMAL
Water Glycol WC Method WC Method >0.2 NEG NEG NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >80 0 13 51 Chromium ppm ASTM D5185m >5 0 <1	CONTAMINATION	ON	method	limit/base	current	history1	history2
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >80 0 13 51 Chromium ppm ASTM D5185m >5 0 <1	Fuel		WC Method	>5	<1.0	<1.0	<1.0
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
Description Description	Glycol		WC Method		NEG	NEG	NEG
Chromium	WEAR METALS	5	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>80	0	13	51
Description	Chromium	ppm	ASTM D5185m	>5	0	<1	<1
Silver	Nickel	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	Titanium	ppm	ASTM D5185m		0	<1	0
Lead	Silver	ppm					
Copper ppm ASTM D5185m >150 0 2 6 Tin ppm ASTM D5185m >5 0 <1	Aluminum	ppm	ASTM D5185m	>30			
Tin	Lead	ppm					
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 2 0 <1 Barium ppm ASTM D5185m 0 0 0 <1 Molybdenum ppm ASTM D5185m 0 44 54 37 Manganese ppm ASTM D5185m 0 <1 <1 1 Magnesium ppm ASTM D5185m 1010 32 29 57 Calcium ppm ASTM D5185m 1070 2137 2341 2249 Phosphorus ppm ASTM D5185m 1150 942 1029 992 Zinc ppm ASTM D5185m 2060 3273 3151 2911 CONTAMINANTS method limit/base current history1 h		ppm			-		
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INFRA-RED							
Soot % % *ASTM D7844 >3 0 0.1 0.1 Nitration Abs/cm *ASTM D7624 >20 4.8 5.5 8.5 Sulfation Abs/.1mm *ASTM D7415 >30 14.0 14.4 17.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 7.1 7.3 9.1		ppm	ASTM D5185m		1		11
Nitration Abs/cm *ASTM D7624 >20 4.8 5.5 8.5 Sulfation Abs/.1mm *ASTM D7415 >30 14.0 14.4 17.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 7.1 7.3 9.1	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 14.0 14.4 17.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 7.1 7.3 9.1	Soot %	%		>3			
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 7.1 7.3 9.1	Nitration	Abs/cm	*ASTM D7624	>20	4.8	5.5	
Oxidation Abs/.1mm *ASTM D7414 >25 7.1 7.3 9.1	Sulfation	Abs/.1mm	*ASTM D7415	>30	14.0	14.4	17.8
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 9.8 8.5 8.2 7.7	Oxidation	Abs/.1mm	*ASTM D7414	>25	7.1	7.3	9.1
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.5	8.2	7.7



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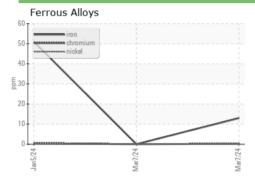


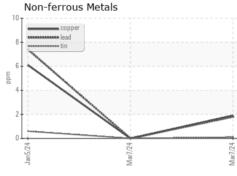


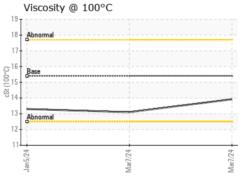
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

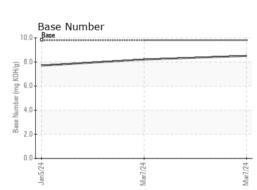
FLUID PROPI	ERTIES	method				history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.92	13.1	13.3

GRAPHS













Certificate L2367

Laboratory Sample No.

Test Package : FLEET

: GFL0115308 Lab Number : 06126285 Unique Number : 10940436

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 22 Mar 2024 **Tested**

: 28 Mar 2024 Diagnosed : 28 Mar 2024 - Don Baldridge

GFL Environmental - 980 - Northside Hauling

1820 Candle Ridge Park Dr Houston, TX US 77073

Contact: Edwin Collins ecollins@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: GFL980 [WUSCAR] 06126285 (Generated: 03/28/2024 22:12:59) Rev: 1

Contact/Location: Edwin Collins - GFL980

T:

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