

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

DODGE 422072

Diesel Engine

Fluid PETRO CANADA DURON HP 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 condition of the oil is acceptable for the time in service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0122246		
Sample Date		Client Info		06 Jun 2024		
Machine Age	hrs	Client Info		5310		
Oil Age	hrs	Client Info		285		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	11		
Chromium	ppm	ASTM D5185(m)	>20	<1		
Nickel	ppm	ASTM D5185(m)	>4	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>3	0		
Aluminum	ppm	ASTM D5185(m)	>20	4		
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)	0	4		
Barium	ppm	ASTM D5185(m)	0	0		
Molybdenum	ppm	ASTM D5185(m)	60	57		
Manganese	ppm	ASTM D5185(m)	0	<1		
Magnesium	ppm	ASTM D5185(m)	1010	924		
Calcium	ppm	ASTM D5185(m)	1070	1031		
Phosphorus	ppm	ASTM D5185(m)	1150	942		
Zinc	ppm	ASTM D5185(m)	1270	1160		
Sulfur	ppm	ASTM D5185(m)	2060	2435		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	2		
Sodium	ppm	ASTM D5185(m)		2		
Potassium	ppm	ASTM D5185(m)	>20	2		
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	0.1		
Nitration	Abs/cm	ASTM D7624*	>20	8.5		
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.2		



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FT-IR (Direct Trend)

Oxidation

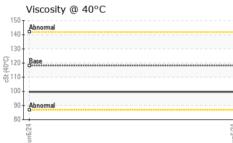
Vitratior Sulfation

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FLUID DEGRA	DATION	method	limit/base	current	history1	history
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.0		
VISUAL		method	limit/base	current	history1	history
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	NONE		
Sand/Dirt	scalar	Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML	NORML		
Odor Emulsified Water	scalar	Visual* Visual*	NORML >0.2	NORML		
Free Water	scalar scalar	Visual*	>0.2	NEG NEG		
FLUID PROPE		method	limit/base		history1	history
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	99.6		
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	13.8		
Viscosity Index (VI)	Scale	ASTM D2270*	139	139		
GRAPHS						
Iron (ppm)			1	Lead (ppm)		
200 - Severe				Severe		
Abnormal			mqq	50 - Abnormal		
04			3/24	0		
Jun6/24			Jun6/24	Jun6/24		
Aluminum (ppm)				Chromium (p	opm)	
60				60		
40 Severe			udd	40 - Severe		
20 - Abnormal			d	20 - Abnormal		
0			+	0		
Jun6/24			Jun6/24	Jun6/24		
∽ Copper (ppm)			-,			
400 Severe				BO Severe	,	
300 +				60 -		
200 -			dd	Automa		
100				20		
Jun6/24			Jun6/24 -	Jun6/24		
Γ			Jur	hur		
Viscosity @ 100°C				Soot %		
20 18 Abnormal				Severe		
G 18 - Abnormal 00 16 - Base ³⁵ 14 - Abnormal			soot %	Abnormal		
to 14			S2	.0-		
12 + 529 un			Jun6/24 + -	Jun6/24		

/ps/cm 10 Viscosity @ 40°C 150 Abnormal 140 130





Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 987 - Charlottetown CALA Sample No. : GFL0122246 Received : 28 Jun 2024 7 Superior Crescent Lab Number : 02644533 Tested : 28 Jun 2024 Charlottetown, PE ISO 17025:2017 Accredited Laboratory CA C1A 7N5 Unique Number : 5802072 Diagnosed : 28 Jun 2024 - Wes Davis Test Package : MOB 1 (Additional Tests: KV40, VI, Visual) Contact: Vicki Metcalfe vmetcalfe@gflenv.com To discuss this sample report, contact Customer Service at 1-800-268-2131. T: (782)377-5918 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. F: (506)453-9490

Report Id: GFL987 [WCAMIS] 02644533 (Generated: 06/28/2024 14:41:31) Rev: 1

Contact/Location: Vicki Metcalfe - GFL987