

OIL ANALYSIS REPORT

Area [1236174] 810053

Component **Diesel Engine**

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

Sample Rating Trend



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

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.

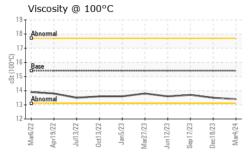
Fluid Condition

The condition of the oil is acceptable for the time in

GAL)		Mar2022 Apr2	022 Jul2022 Oct2022 Jan2	023 Marž023 Junž023 Sepž023 Deca	023 Mar2024				
SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2			
Sample Number		Client Info		GFL0093960	GFL0093938	GFL0093925			
Sample Date		Client Info		04 Mar 2024	18 Dec 2023	17 Sep 2023			
Machine Age	hrs	Client Info		5147	0	0			
Oil Age	Client Info		0	0	0 N/A NORMAL				
Oil Changed Cample Status		Client Info		N/A				N/A	
				NORMAL				NORMAL	
CONTAMINA	ΓΙΟΝ	method	limit/base	current	history1	history2			
Fuel		WC Method	>5	<1.0	<1.0	<1.0			
Water		WC Method	>0.2	NEG	NEG	NEG NEG			
Glycol		WC Method		NEG	NEG				
WEAR METAI	LS	method	limit/base	current	history1	history2			
Iron	ppm	ASTM D5185(m)	>100	21	27	25 <1			
Chromium	ppm	ASTM D5185(m)	>20	<1	<1				
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1			
Titanium	ppm	ASTM D5185(m)		0	0	0 <1			
Silver	ppm	ASTM D5185(m)	>3	0	0				
Aluminum	ppm	ASTM D5185(m)	>20	6	10	8			
Lead	ad ppm		>40	0	<1	<1 2			
Copper ppm		ASTM D5185(m)	>330	2	2				
Tin	ppm	ASTM D5185(m)	>15	0	<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)	0	6	4	5			
Barium	ppm	ASTM D5185(m)	0	0	0	0			
Molybdenum	ppm	ASTM D5185(m)	60	59	60	59			
Manganese	ppm	ASTM D5185(m)	0	0	0	<1			
Magnesium	ppm	ASTM D5185(m)	1010	924	945	950			
Calcium	ppm	ASTM D5185(m)	1070	1111	1169	1065			
Phosphorus	ppm	ASTM D5185(m)	1150	987	1021	1058			
Zinc	ppm	ASTM D5185(m)	1270	1150	1188	1187			
Sulfur	ppm	ASTM D5185(m)	2060	2566	2610	2443			
Lithium	ppm	ASTM D5185(m)		<1	<1	<1			
CONTAMINA	NTS	method	limit/base	current	history1	history2			
Silicon	ppm	ASTM D5185(m)	>25	4	7	4			
Sodium	ppm	ASTM D5185(m)		9	9	9			
Potassium	ppm	ASTM D5185(m)	>20	7	13	12			
INFRA-RED		method	limit/base	current	history1	history2			
Soot %	%	ASTM D7844*	>3	0.4	0.5	0.5			
Nitration	Abs/cm	ASTM D7624*	>20	9.7	9.8	9.7			
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.5	21.0	21.0			



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FLUID DEGRAI	OATION	method	limit/base	current	history1	history2
Oxidation Abs/.1mr		ASTM D7414*	>25	17.7	17.8	17.8
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water scalar		Visual*		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C cSt		ASTM D7279(m)	15.4	13.4	13.5	13.7
0.5.4.51.10						

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50											20	Ī									
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	Mar6/22	Apr19/22	Jul13/22	Oct13/22	Jan5/23	Mar27/23	Jun12/23	Sep17/23	Dec18/23	Mar4/24 -		Mar6/22	Apr19/22	Jul13/22	Oct13/22	Jan5/23	Mar27/23	Jun12/23	Sep17/23	Dec18/23	Mar4/24 -
10	Vis	cosit	у @	100°	C						0.0		ot %								
19 18	Abn	ormal									6.0 5.0	S	ere								
17	-										4.0	L.									
CSt (100°C)	Base										% to3.0	Abr	normal	-							-
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	Mar6/22	Apr19/22	Jul13/22	Oct13/22	Jan5/23	Mar27/23	Jun12/23	Sep17/23	Dec18/23 -	Mar4/24 -	3.0	Mar6/22	Apr19/22	Jul13/22	Oct13/22	Jan5/23	Mar27/23	Jun12/23	Sep17/23	Dec18/23 -	Mar4/24
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CALA ISO 17025:2017 Accredited Laboratory

Sample No.

Laboratory

: GFL0093960 Lab Number : 02620744

Unique Number : 5737854 Test Package : MOB 1

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 777 - Belleville-Municipal waste Received : 08 Mar 2024 **Tested** : 08 Mar 2024

Diagnosed : 08 Mar 2024 - Wes Davis

197 Putman Industrial Road Belleville, ON

CA K8N 4Z6 Contact: Andrea Michael amichael@gflenv.com T: (613)962-7144

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.

F: (613)962-1994