



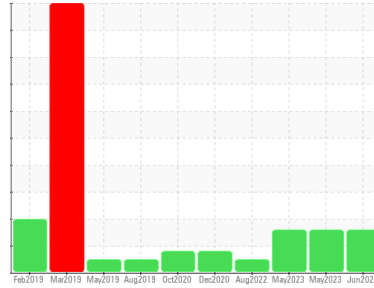
PROBLEM SUMMARY

Machine Id
929080-205304

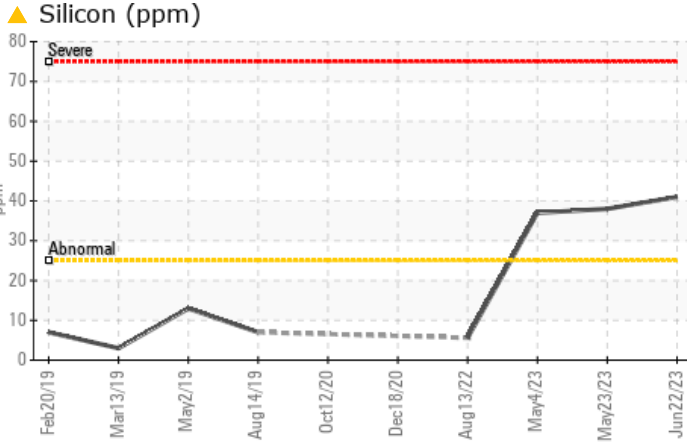
Component
Diesel Engine

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

Sample Rating Trend



COMPONENT CONDITION SUMMARY




RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status	ABNORMAL	ABNORMAL	ABNORMAL
Silicon	ppm	ASTM D5185m	>25
	▲ 41	▲ 38	▲ 37

Customer Id: GFL821
Sample No.: GFL0065439
Lab Number: 05882919
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Check Dirt Access	MISSED	Jul 27 2023	?	We advise that you check the air filter, air induction system, and any areas where dirt may enter the component.

HISTORICAL DIAGNOSIS

23 May 2023 Diag: Sean Felton

DIRT



We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

view report



04 May 2023 Diag: Don Baldrige

DIRT



We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor. All component wear rates are normal. Elemental level of silicon (Si) above normal. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

view report



13 Aug 2022 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

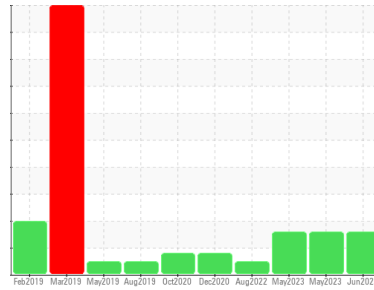
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OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
929080-205304

Component
Diesel Engine

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

DIAGNOSIS

Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elemental level of silicon (Si) above normal.

Fluid Condition

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

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0065439	GFL0076793	GFL0076839
Sample Date	Client Info	22 Jun 2023	23 May 2023	04 May 2023
Machine Age	hrs	11025	10836	10688
Oil Age	hrs	600	150	200
Oil Changed	Client Info	Changed	Not Changd	N/A
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	28	21	18
Chromium	ppm ASTM D5185m >20	2	2	1
Nickel	ppm ASTM D5185m >4	<1	0	0
Titanium	ppm ASTM D5185m	<1	0	<1
Silver	ppm ASTM D5185m >3	<1	<1	0
Aluminum	ppm ASTM D5185m >20	8	7	4
Lead	ppm ASTM D5185m >40	5	2	2
Copper	ppm ASTM D5185m >330	6	4	4
Tin	ppm ASTM D5185m >15	2	1	<1
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	<1	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	6	8	9
Barium	ppm ASTM D5185m 0	4	0	0
Molybdenum	ppm ASTM D5185m 60	62	58	59
Manganese	ppm ASTM D5185m 0	2	2	2
Magnesium	ppm ASTM D5185m 1010	998	975	867
Calcium	ppm ASTM D5185m 1070	1176	1109	1050
Phosphorus	ppm ASTM D5185m 1150	1083	1051	999
Zinc	ppm ASTM D5185m 1270	1323	1303	1203
Sulfur	ppm ASTM D5185m 2060	3695	3793	3008

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	▲ 41	▲ 38	▲ 37
Sodium	ppm ASTM D5185m	18	11	8
Potassium	ppm ASTM D5185m >20	4	2	2

INFRA-RED

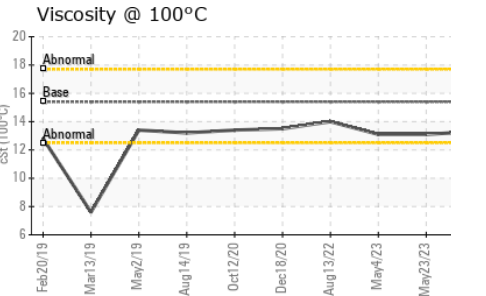
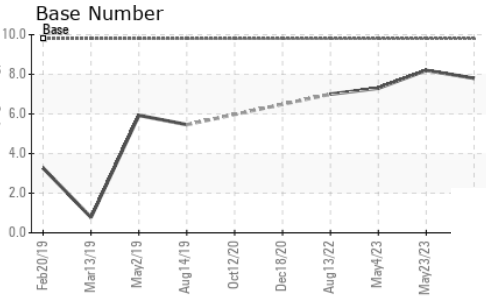
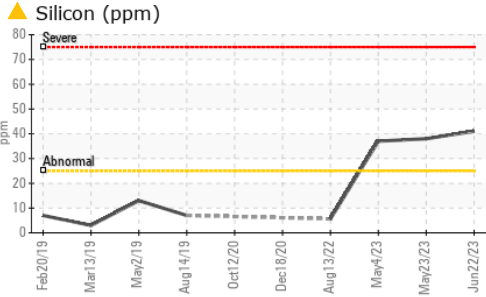
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.5	0.3	0.2
Nitration	Abs/cm *ASTM D7624 >20	9.6	8.4	6.6
Sulfation	Abs/.1mm *ASTM D7415 >30	21.9	20.5	17.4

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	17.6	16.1	14.1
Base Number (BN)	mg KOH/g ASTM D2896 9.8	7.8	8.2	7.3



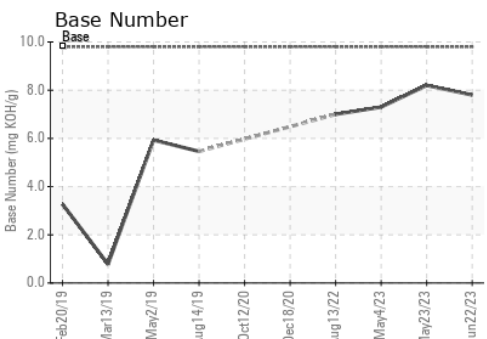
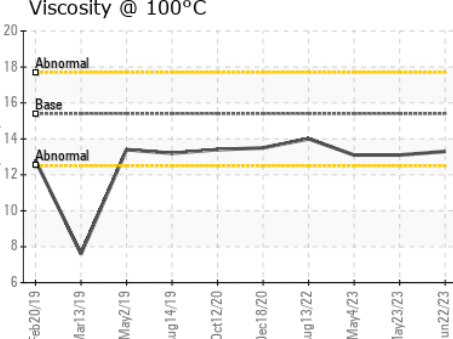
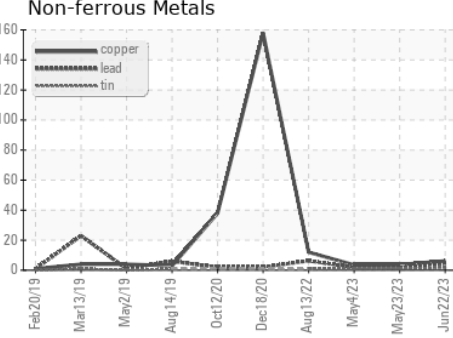
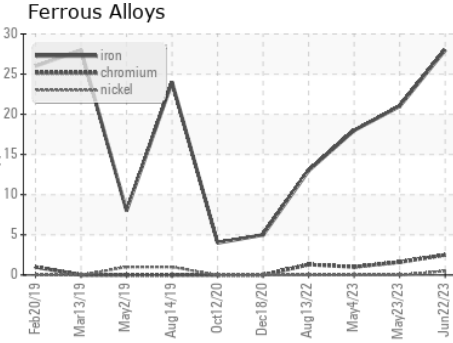
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.1

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0065439 **Received** : 26 Jun 2023
Lab Number : 05882919 **Diagnosed** : 28 Jun 2023
Unique Number : 10533402 **Diagnostician** : Don Baldrige
Test Package : FLEET

GFL Environmental - 821 - Ozarks Hauling
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 Lebanon, MO
 US 65536
 Contact: Landen Johnson
 landen.johnson@gflenv.com
 T: (417)664-0010
 F:

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)