



PROBLEM SUMMARY

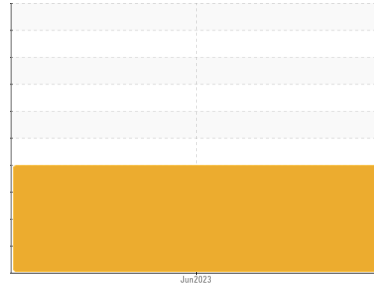
Sample Rating Trend

DIRT



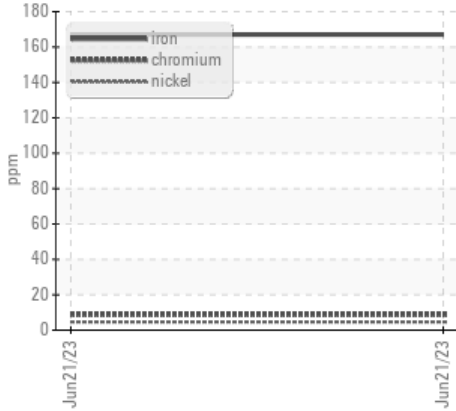
Area
TALLASSEE
Machine Id
426044-365107

Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

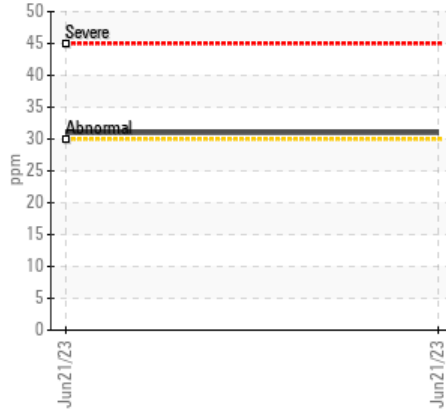


COMPONENT CONDITION SUMMARY

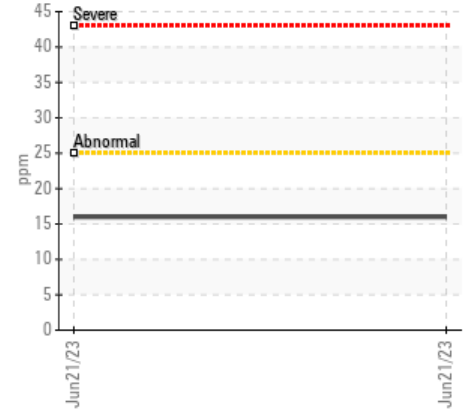
▲ Ferrous Alloys



▲ Silicon (ppm)



▲ Aluminum (ppm)



RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185m	>110	▲ 167	---	---
Chromium	ppm	ASTM D5185m	>4	▲ 9	---	---
Aluminum	ppm	ASTM D5185m	>25	▲ 16	---	---
Silicon	ppm	ASTM D5185m	>30	▲ 31	---	---

Customer Id: GFL172
Sample No.: GFL0045428
Lab Number: 05885384
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

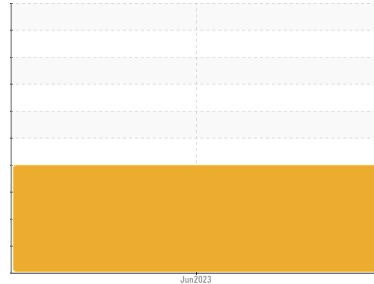
Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check the air filter, air induction system, and any areas where dirt may enter the component.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Area
TALLASSEE
 Machine Id
426044-365107

Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

DIAGNOSIS

▲ Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend an early resample to monitor this condition.

▲ Wear

Cylinder, crank, or cam shaft wear is indicated.

▲ Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

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	history 1	history 2
Sample Number	Client Info	GFL0045428	---	---
Sample Date	Client Info	21 Jun 2023	---	---
Machine Age	hrs	Client Info	7996	---
Oil Age	hrs	Client Info	7996	---
Oil Changed	Client Info	N/A	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

method	limit/base	current	history 1	history 2
Fuel	WC Method	>5	<1.0	---
Glycol	WC Method		NEG	---

WEAR METALS

method	limit/base	current	history 1	history 2	
Iron	ppm	ASTM D5185m	>110	▲ 167	---
Chromium	ppm	ASTM D5185m	>4	▲ 9	---
Nickel	ppm	ASTM D5185m	>2	5	---
Titanium	ppm	ASTM D5185m		<1	---
Silver	ppm	ASTM D5185m	>2	0	---
Aluminum	ppm	ASTM D5185m	>25	▲ 16	---
Lead	ppm	ASTM D5185m	>45	3	---
Copper	ppm	ASTM D5185m	>85	5	---
Tin	ppm	ASTM D5185m	>4	<1	---
Vanadium	ppm	ASTM D5185m		0	---
Cadmium	ppm	ASTM D5185m		<1	---

ADDITIVES

method	limit/base	current	history 1	history 2	
Boron	ppm	ASTM D5185m	0	33	---
Barium	ppm	ASTM D5185m	0	<1	---
Molybdenum	ppm	ASTM D5185m	60	75	---
Manganese	ppm	ASTM D5185m	0	2	---
Magnesium	ppm	ASTM D5185m	1010	938	---
Calcium	ppm	ASTM D5185m	1070	1447	---
Phosphorus	ppm	ASTM D5185m	1150	1026	---
Zinc	ppm	ASTM D5185m	1270	1294	---
Sulfur	ppm	ASTM D5185m	2060	3633	---

CONTAMINANTS

method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185m	>30	▲ 31	---
Sodium	ppm	ASTM D5185m		9	---
Potassium	ppm	ASTM D5185m	>20	5	---

INFRA-RED

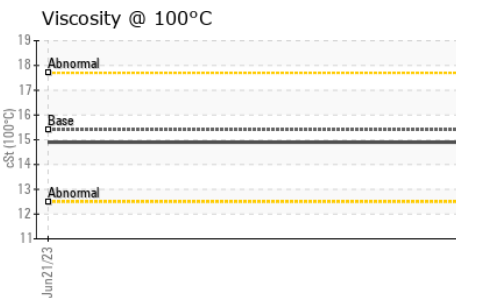
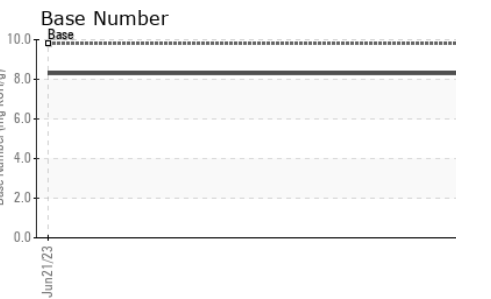
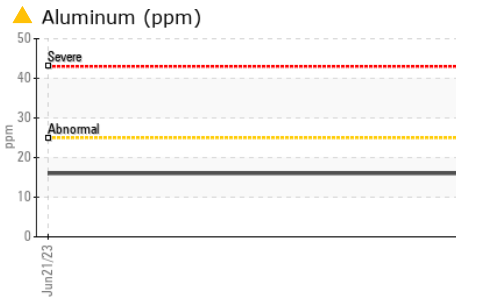
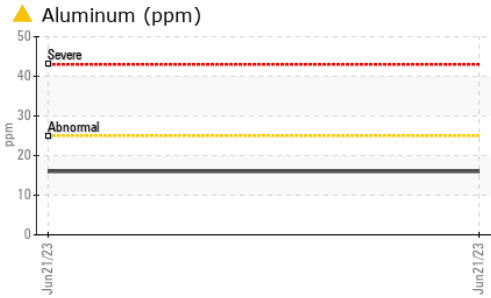
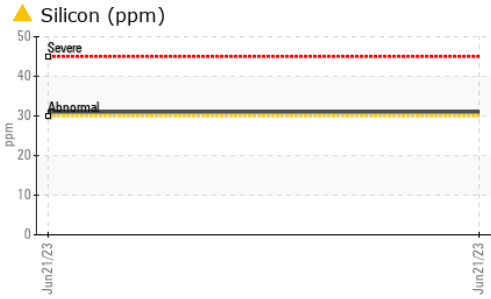
method	limit/base	current	history 1	history 2	
Soot %	%	*ASTM D7844	>3	1.6	---
Nitration	Abs/cm	*ASTM D7624	>20	13.2	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	26.8	---

FLUID DEGRADATION

method	limit/base	current	history 1	history 2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.2	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.3	---



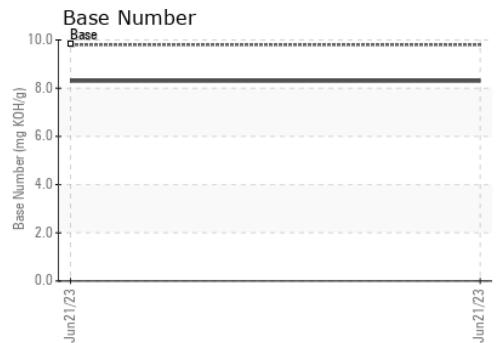
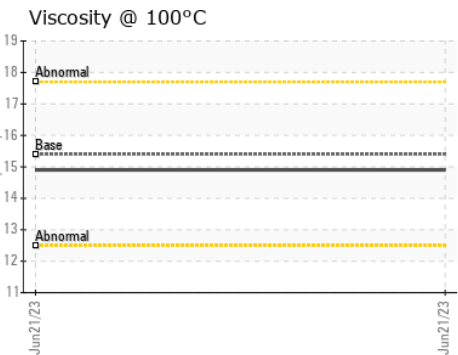
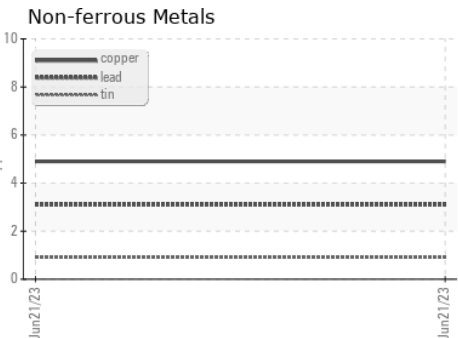
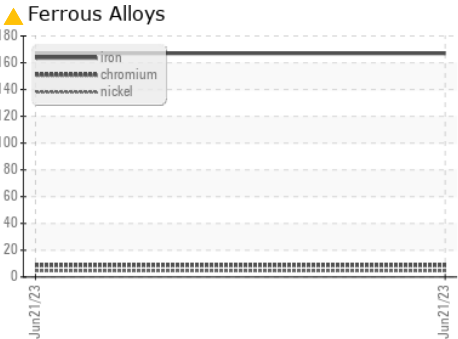
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4	14.9	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0045428 Received : 28 Jun 2023
 Lab Number : 05885384 Diagnosed : 30 Jun 2023
 Unique Number : 10535867 Diagnostician : Don Baldrige
 Test Package : FLEET

GFL Environmental - 172 - Montgomery-Alexander City-Tallahassee
 Multiple Sites
 Montgomery, AL
 US 36108
 Contact: BRANDON HURST
 brandonhurst@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)