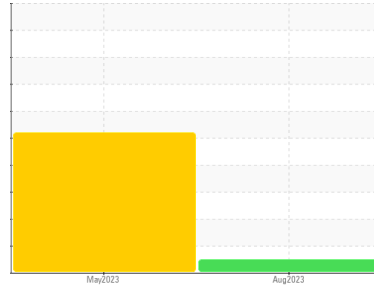




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
913117
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (28 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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0091722	GFL0071031	---
Sample Date	Client Info	30 Aug 2023	24 May 2023	---
Machine Age	hrs	Client Info	1431	0
Oil Age	hrs	Client Info	600	600
Oil Changed	Client Info	Changed	Changed	---
Sample Status		NORMAL	SEVERE	---

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	0.3
Glycol	WC Method		NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>120	31	53
Chromium	ppm	ASTM D5185m	>20	<1	2
Nickel	ppm	ASTM D5185m	>5	6	4
Titanium	ppm	ASTM D5185m	>2	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	1
Aluminum	ppm	ASTM D5185m	>20	0	5
Lead	ppm	ASTM D5185m	>40	<1	3
Copper	ppm	ASTM D5185m	>330	58	158
Tin	ppm	ASTM D5185m	>15	1	4
Vanadium	ppm	ASTM D5185m		0	0
Cadmium	ppm	ASTM D5185m		0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	8	250
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	60	70	131
Manganese	ppm	ASTM D5185m	0	1	6
Magnesium	ppm	ASTM D5185m	1010	1049	738
Calcium	ppm	ASTM D5185m	1070	1261	1615
Phosphorus	ppm	ASTM D5185m	1150	987	728
Zinc	ppm	ASTM D5185m	1270	1321	916
Sulfur	ppm	ASTM D5185m	2060	2974	2612

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	15	139
Sodium	ppm	ASTM D5185m		3	5
Potassium	ppm	ASTM D5185m	>20	4	6

INFRA-RED

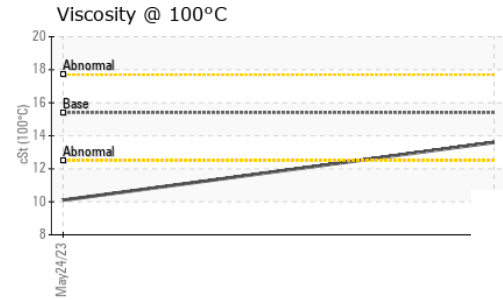
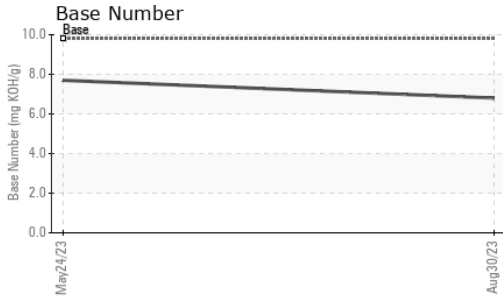
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>4	0.9	0.7
Nitration	Abs/cm	*ASTM D7624	>20	9.3	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2	25.6

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.7	24.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.8	7.7



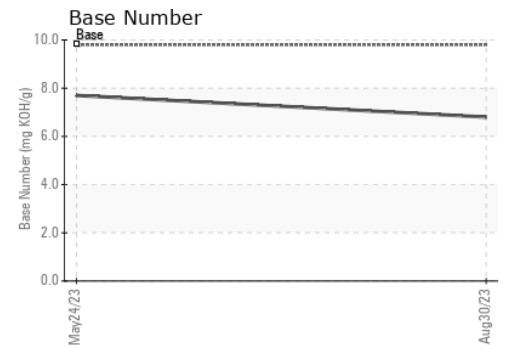
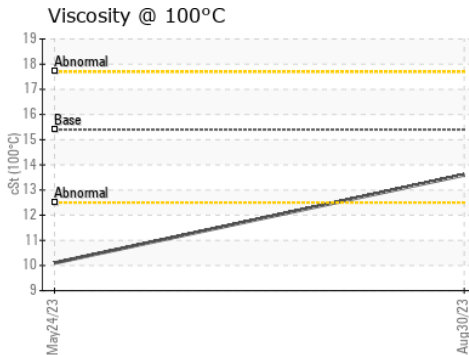
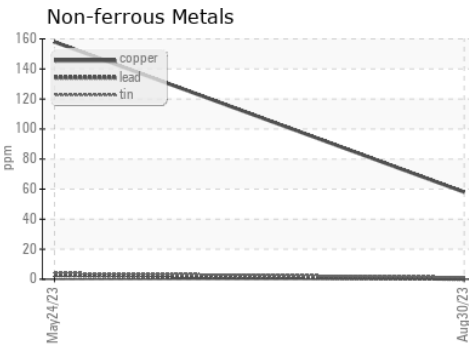
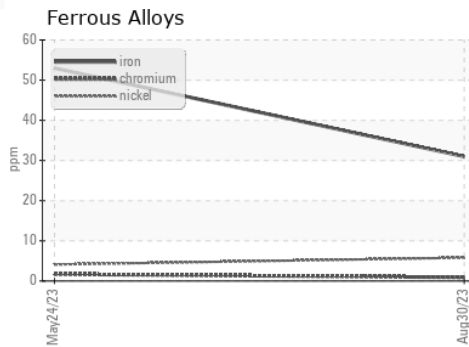
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
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	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	▲ 10.1

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0091722 **Received** : 12 Sep 2023
Lab Number : 05948673 **Diagnosed** : 14 Sep 2023
Unique Number : 10644632 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 401 - Fort Wayne Hauling
 4429 ALLEN MARTIN DR
 FORT WAYNE, IN
 US 46806
 Contact: Stephanie Burton
 stephanieburton@gflenv.com
 T: (260)747-5037
 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)