



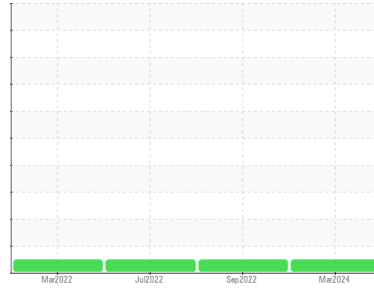
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
710018
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (36 QTS)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Resample)

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		GFL0115124	GFL0059203	GFL0052081
Sample Date	Client Info		10 Mar 2024	29 Sep 2022	14 Jul 2022
Machine Age	hrs	Client Info	10069	7500	6564
Oil Age	hrs	Client Info	0	7500	6564
Oil Changed	Client Info		Not Chngd	N/A	N/A
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>75	8	8	15
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>15	2	5	3
Lead	ppm	ASTM D5185m	>25	0	0	<1
Copper	ppm	ASTM D5185m	>100	6	1	1
Tin	ppm	ASTM D5185m	>4	<1	0	1
Antimony	ppm	ASTM D5185m		---	---	---
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	<1	2	3
Barium	ppm	ASTM D5185m	0	0	<1	0
Molybdenum	ppm	ASTM D5185m	60	59	62	54
Manganese	ppm	ASTM D5185m	0	0	0	<1
Magnesium	ppm	ASTM D5185m	1010	884	915	826
Calcium	ppm	ASTM D5185m	1070	1005	1089	1013
Phosphorus	ppm	ASTM D5185m	1150	959	1033	898
Zinc	ppm	ASTM D5185m	1270	1153	1251	1115
Sulfur	ppm	ASTM D5185m	2060	2863	3310	3170

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	4	2	3
Sodium	ppm	ASTM D5185m		<1	6	5
Potassium	ppm	ASTM D5185m	>20	2	12	4

INFRA-RED

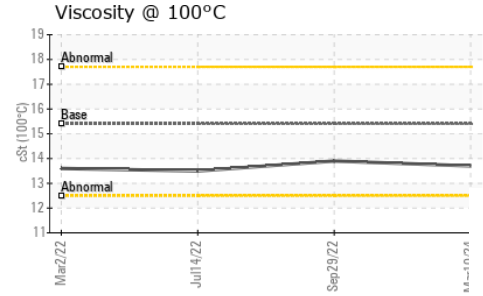
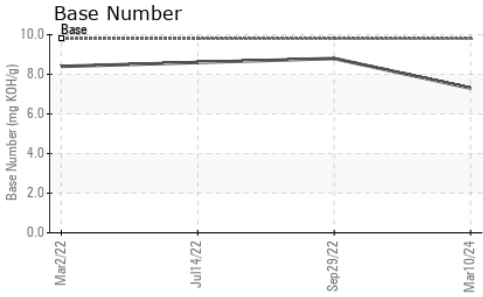
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>6	0.5	0.8	0.7
Nitration	Abs/cm	*ASTM D7624	>20	7.7	10.0	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	21.6	21.5

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.2	17.7	17.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.3	8.8	8.6



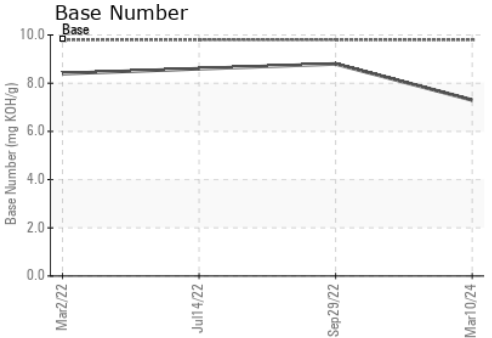
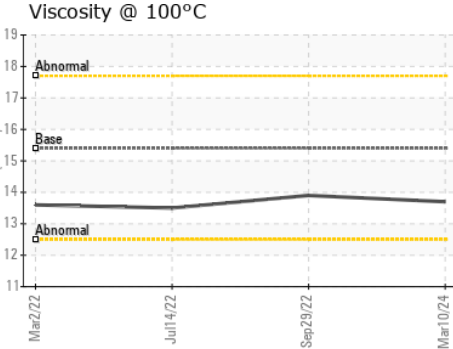
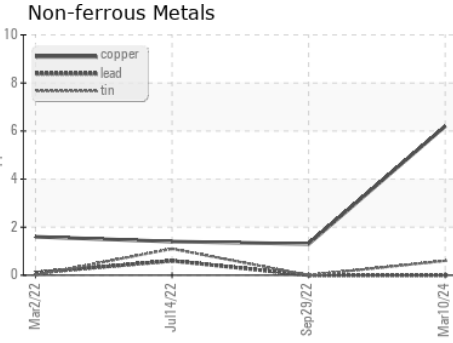
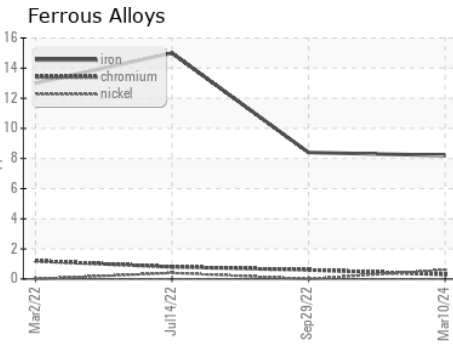
OIL ANALYSIS REPORT



PARAMETER	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	13.7	13.9	13.5

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115124 **Received** : 13 Mar 2024
Lab Number : **06116766** **Tested** : 14 Mar 2024
Unique Number : 10925599 **Diagnosed** : 14 Mar 2024 - Don Baldrige
Test Package : FLEET

GFL Environmental - 405 - Arbor Hills
 7400 Napier Rd
 NORTHVILLE, MI
 US 48168
 Contact: Anthony Hopkins
 ahopkins@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)

T:
F: