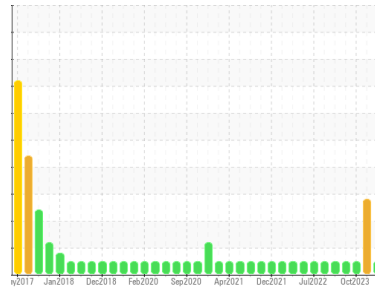




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

2671

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 15W40 (11 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	GFL0072073	GFL0072112	GFL0072156	
Sample Date	Client Info	29 Feb 2024	11 Jan 2024	11 Oct 2023	
Machine Age	hrs	Client Info	18635	18269	17091
Oil Age	hrs	Client Info	600	0	600
Oil Changed	Client Info	Changed	Not Changd	Changed	
Sample Status		NORMAL	ATTENTION	NORMAL	

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<1.0	▲ 1.4	<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 >165	12	10	15
Chromium	ppm ASTM D5185m >5	<1	<1	<1
Nickel	ppm ASTM D5185m >4	0	0	<1
Titanium	ppm ASTM D5185m >2	0	<1	0
Silver	ppm ASTM D5185m >2	0	0	<1
Aluminum	ppm ASTM D5185m >20	2	3	3
Lead	ppm ASTM D5185m >150	1	<1	3
Copper	ppm ASTM D5185m >90	<1	<1	1
Tin	ppm ASTM D5185m >5	<1	2	<1
Vanadium	ppm ASTM D5185m	0	<1	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	7	● 56	8
Barium	ppm ASTM D5185m 0	0	<1	0
Molybdenum	ppm ASTM D5185m 60	63	43	64
Manganese	ppm ASTM D5185m 0	<1	<1	<1
Magnesium	ppm ASTM D5185m 1010	952	● 524	923
Calcium	ppm ASTM D5185m 1070	1064	● 1474	1079
Phosphorus	ppm ASTM D5185m 1150	1058	● 711	1059
Zinc	ppm ASTM D5185m 1270	1255	● 902	1288
Sulfur	ppm ASTM D5185m 2060	3382	2496	2886

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >35	6	12	8
Sodium	ppm ASTM D5185m	3	18	10
Potassium	ppm ASTM D5185m >20	<1	1	3

INFRA-RED

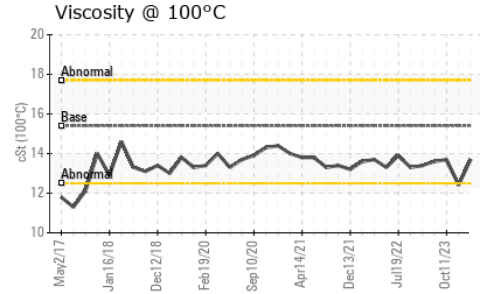
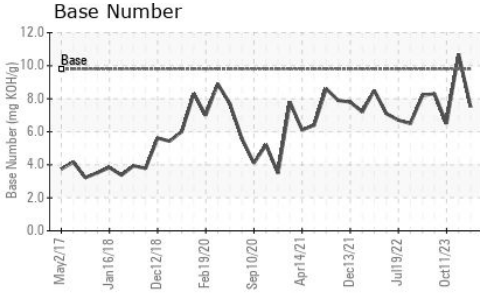
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >7.5	0.3	0.1	0.4
Nitration	Abs/cm *ASTM D7624 >20	9.8	4.9	11.2
Sulfation	Abs/.1mm *ASTM D7415 >30	20.9	21.1	22.7

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	18.4	18.2	19.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	7.5	10.7	6.5



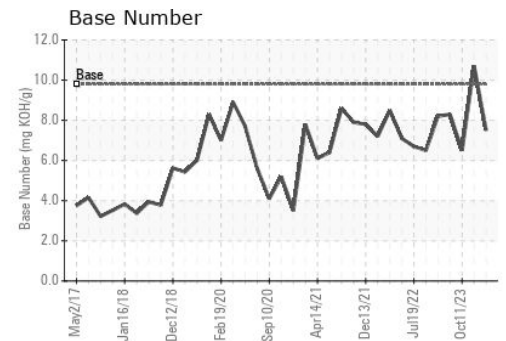
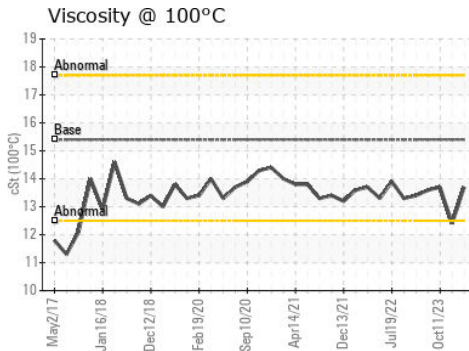
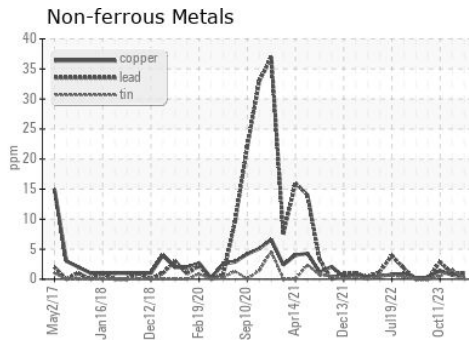
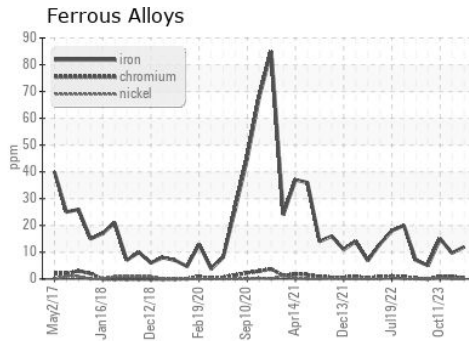
OIL ANALYSIS REPORT



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	13.7	12.4

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0072073
 Lab Number : 06117690
 Unique Number : 10926523
 Test Package : FLEET

Received : 13 Mar 2024
 Tested : 14 Mar 2024
 Diagnosed : 14 Mar 2024 - Wes Davis

GFL Environmental - 094 - Cedartown
 2097 Buchanan Highway
 Cedartown, GA
 US 30125
 Contact: WILLIAM FOSTER
 william.foster@gflenv.com
 T: (800)207-6618
 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)