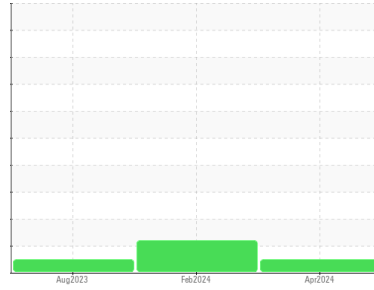




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
(TB6606)

Machine Id
412070

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- 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 acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			GFL0113051	GFL0113039	GFL0059618
Sample Date	Client Info			16 Apr 2024	22 Feb 2024	14 Aug 2023
Machine Age	hrs	Client Info		4780	4261	0
Oil Age	hrs	Client Info		601	0	0
Oil Changed	Client Info			Changed	N/A	N/A
Sample Status				NORMAL	ABNORMAL	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	>165	22	38	28
Chromium	ppm	ASTM D5185m	>5	1	1	1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	6	7
Lead	ppm	ASTM D5185m	>150	1	<1	2
Copper	ppm	ASTM D5185m	>90	1	2	2
Tin	ppm	ASTM D5185m	>5	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		<1	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	12	5	14
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	90	58	62
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1315	828	999
Calcium	ppm	ASTM D5185m	1070	1501	979	1183
Phosphorus	ppm	ASTM D5185m	1150	1435	814	987
Zinc	ppm	ASTM D5185m	1270	1685	1034	1290
Sulfur	ppm	ASTM D5185m	2060	4308	2357	3575

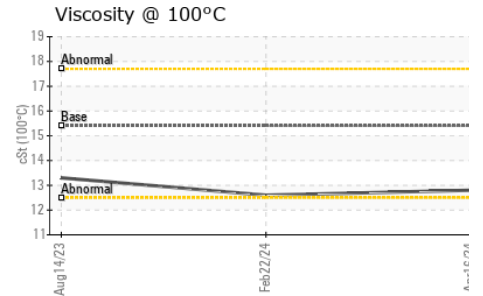
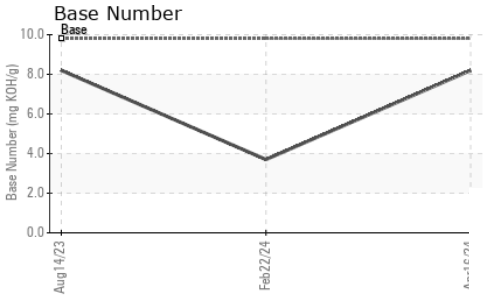
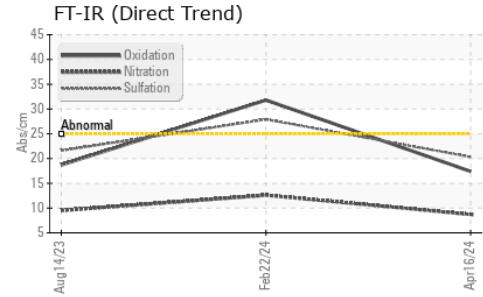
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>35	7	6	10
Sodium	ppm	ASTM D5185m		6	7	5
Potassium	ppm	ASTM D5185m	>20	9	18	15

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>7.5	0.3	0.6	0.5
Nitration	Abs/cm	*ASTM D7624	>20	8.7	12.6	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	27.9	21.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.4	31.8	18.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.2	▲ 3.7	8.2



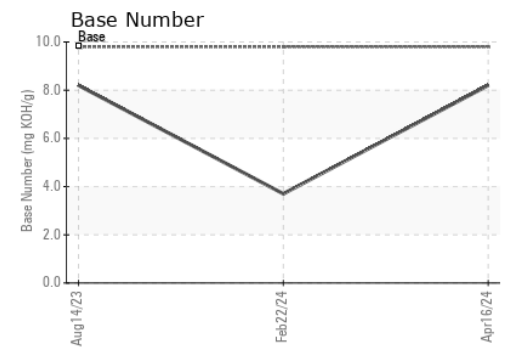
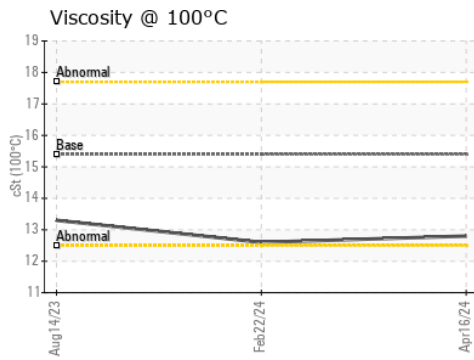
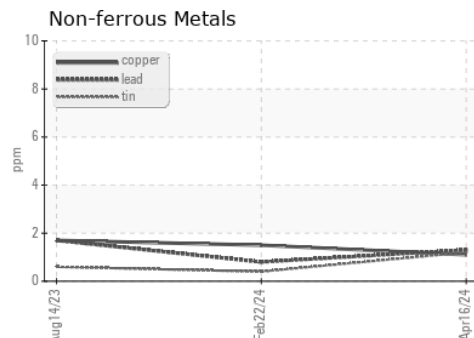
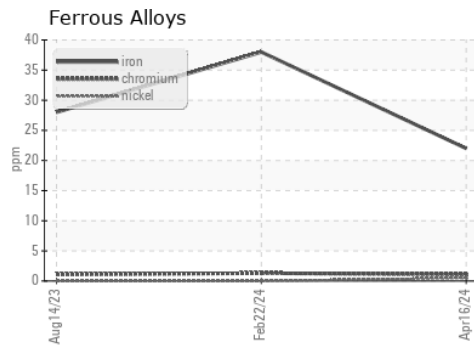
OIL ANALYSIS REPORT



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	12.8	12.6	13.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0113051 **Received** : 19 Apr 2024
Lab Number : **06155174** **Tested** : 24 Apr 2024
Unique Number : 10990597 **Diagnosed** : 24 Apr 2024 - Sean Felton
Test Package : FLEET

GFL Environmental - 924 - Madison HC
 300 Raemisch Road
 Waunakee, WI
 US 53597
 Contact: Ben Briggs
 ben.briggs@gflenv.com
 T: (608)770-9196
 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)