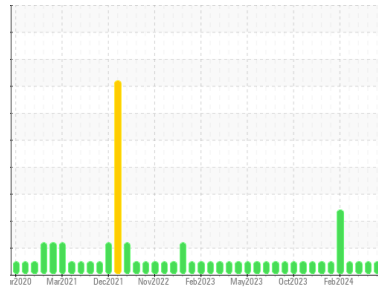




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
(D582HW)

Machine Id
10681

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 suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			GFL0098900	GFL0098891	GFL0099022
Sample Date	Client Info			06 May 2024	15 Apr 2024	25 Mar 2024
Machine Age	hrs Client Info			17242	19504	19347
Oil Age	hrs Client Info			19664	19347	18768
Oil Changed	Client Info			N/A	N/A	Changed
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	19	12	28
Chromium	ppm	ASTM D5185m	>5	0	1	<1
Nickel	ppm	ASTM D5185m	>4	0	1	<1
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>15	0	2	2
Lead	ppm	ASTM D5185m	>25	0	1	0
Copper	ppm	ASTM D5185m	>100	0	1	<1
Tin	ppm	ASTM D5185m	>4	0	1	0
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	<1	<1
Barium	ppm	ASTM D5185m	0	0	<1	0
Molybdenum	ppm	ASTM D5185m	60	60	59	62
Manganese	ppm	ASTM D5185m	0	0	1	<1
Magnesium	ppm	ASTM D5185m	1010	968	880	1016
Calcium	ppm	ASTM D5185m	1070	1154	1051	1258
Phosphorus	ppm	ASTM D5185m	1150	1053	937	1101
Zinc	ppm	ASTM D5185m	1270	1280	1143	1381
Sulfur	ppm	ASTM D5185m	2060	3313	3116	3842

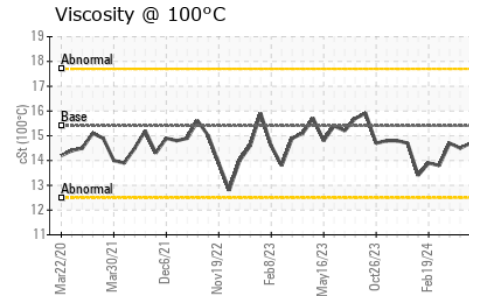
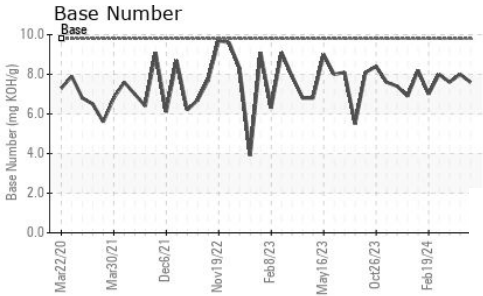
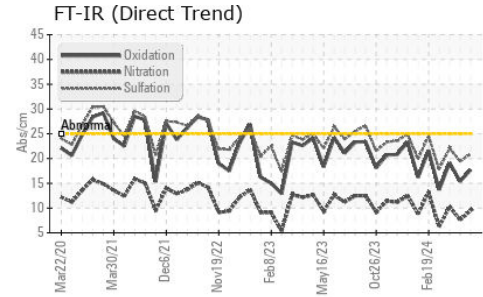
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	5	8	6
Sodium	ppm	ASTM D5185m		18	14	42
Potassium	ppm	ASTM D5185m	>20	8	10	36

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	0.6	0.4	0.6
Nitration	Abs/cm	*ASTM D7624	>20	9.5	7.6	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.9	19.4	22.1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.7	15.4	19.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.6	8.0	7.6



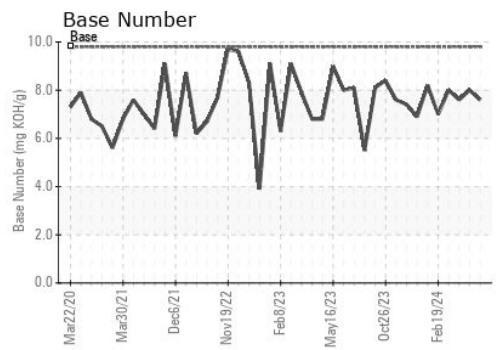
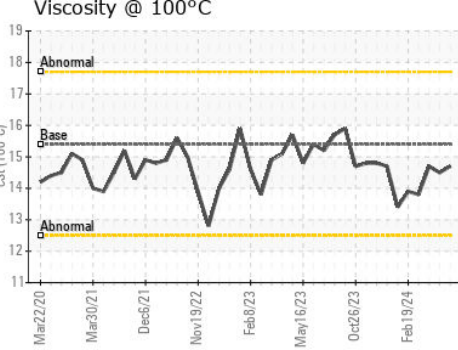
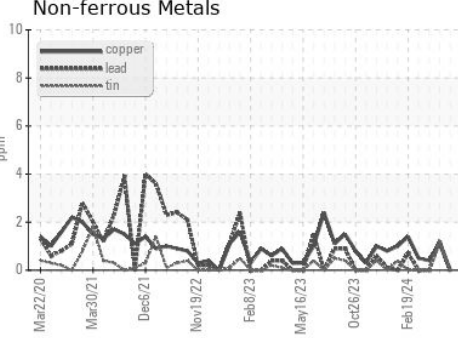
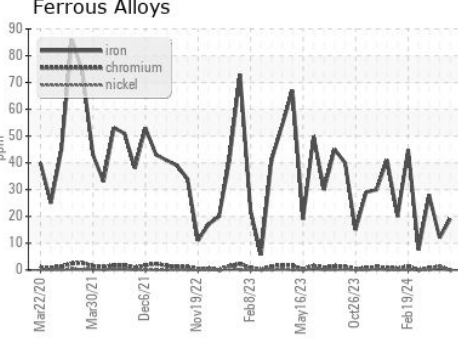
OIL ANALYSIS REPORT



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	14.7	14.5

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0098900
Lab Number : 06187481
Unique Number : 11044233
Test Package : FLEET

GFL Environmental - 084 - Clarksville
 699 Jack Miller Boulevard
 Clarksville, TN
 US 37042

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)