



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

MONTGOMERY

Machine Id

MACK 923058

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 15W40 (--- GAL)



RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0080681	GFL0081849	GFL0075105
Sample Date		Client Info		20 May 2024	25 Jan 2024	10 Mar 2023
Machine Age	hrs	Client Info		3862	3662	2876
Oil Age	hrs	Client Info		3862	3662	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	10	23	14
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	3	1
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	0	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

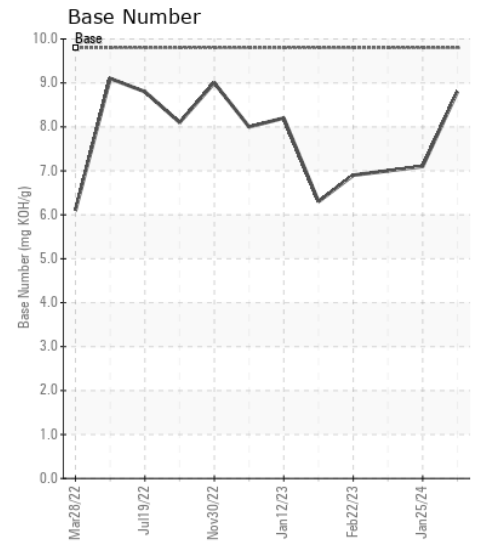
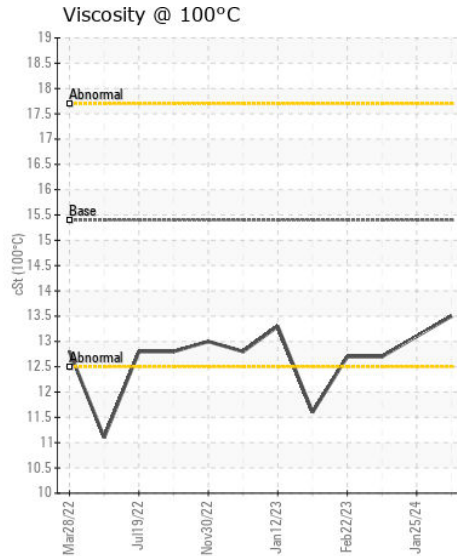
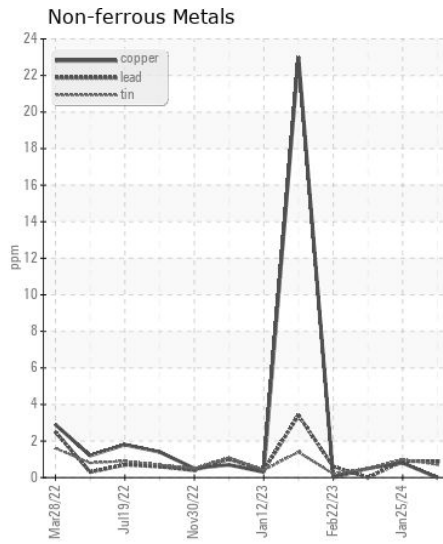
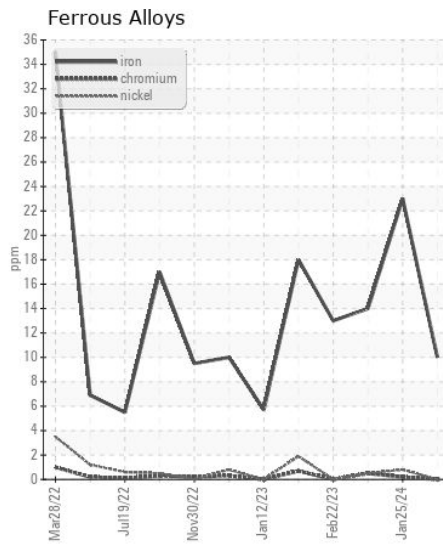
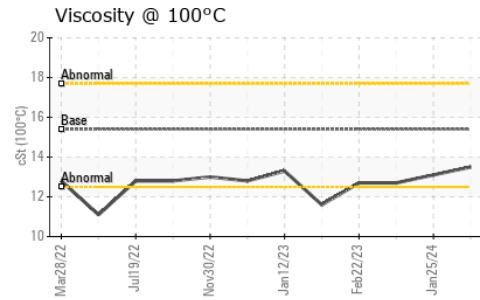
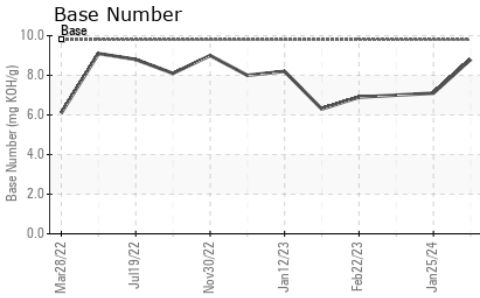
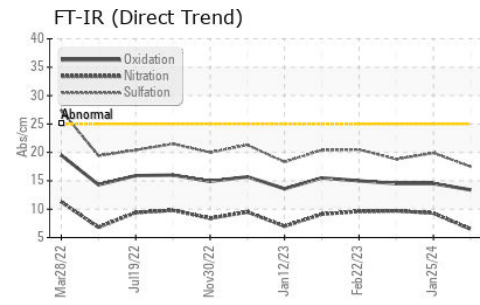
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	7	6
Potassium	ppm	ASTM D5185m	>20	<1	2	0
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
Soot %	%	*ASTM D7844	>4	0.4	1.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	6.5	9.3	9.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.5	19.9	18.8
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

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.

Sodium	ppm	ASTM D5185m		2	4	6
Boron	ppm	ASTM D5185m	0	11	4	4
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	60	57	53
Manganese	ppm	ASTM D5185m	0	<1	<1	1
Magnesium	ppm	ASTM D5185m	1010	947	926	828
Calcium	ppm	ASTM D5185m	1070	1029	977	962
Phosphorus	ppm	ASTM D5185m	1150	1041	997	843
Zinc	ppm	ASTM D5185m	1270	1233	1213	1060
Sulfur	ppm	ASTM D5185m	2060	3579	2920	2571
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.4	14.5	14.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.8	7.1	7.0
Visc @ 100°C	cSt	ASTM D445	15.4	13.5	13.1	12.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0080681
Lab Number : 06187189
Unique Number : 11043941
Test Package : FLEET

Received : 21 May 2024
Tested : 22 May 2024
Diagnosed : 22 May 2024 - Wes Davis

GFL Environmental - 955 - Montgomery
 1121 Wilbanks St
 Montgomery, AL
 US 36108
 Contact: LISA REEVES

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: