



Area
MONTGOMERY
Machine Id
MACK 420055
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0127235	GFL0088021	GFL0118430
Sample Date		Client Info		25 Jun 2024	23 May 2024	06 May 2024
Machine Age	hrs	Client Info		11434	11120	11035
Oil Age	hrs	Client Info		525	211	126
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

An increase in the iron level is noted. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	63	5	3
Chromium	ppm	ASTM D5185m	>20	1	<1	0
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	1	0
Aluminum	ppm	ASTM D5185m	>20	5	2	<1
Lead	ppm	ASTM D5185m	>40	2	<1	<1
Copper	ppm	ASTM D5185m	>330	2	1	0
Tin	ppm	ASTM D5185m	>15	<1	1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

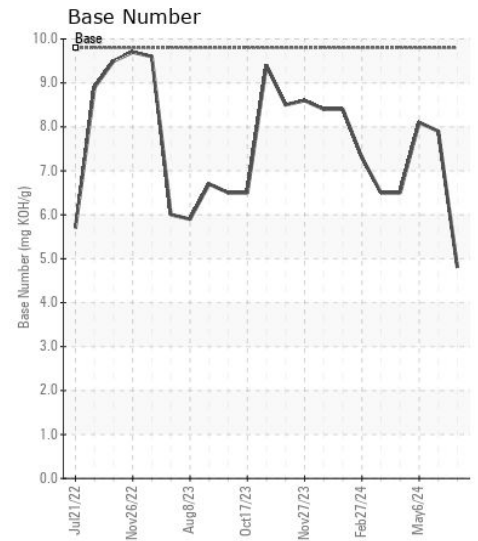
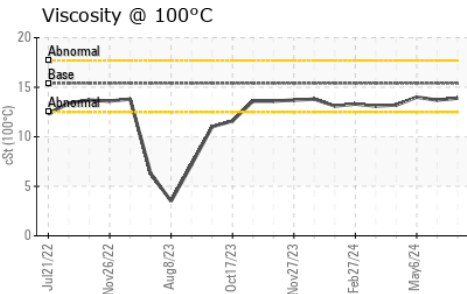
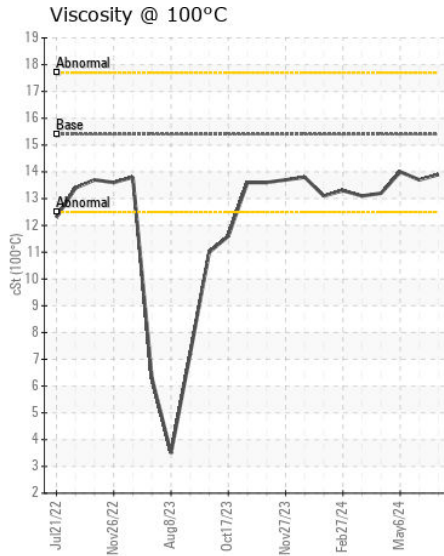
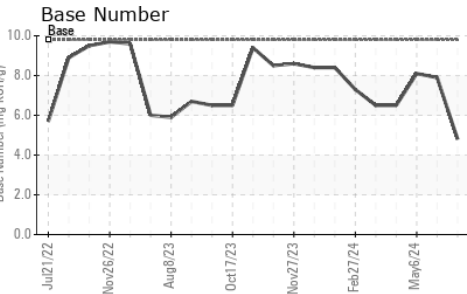
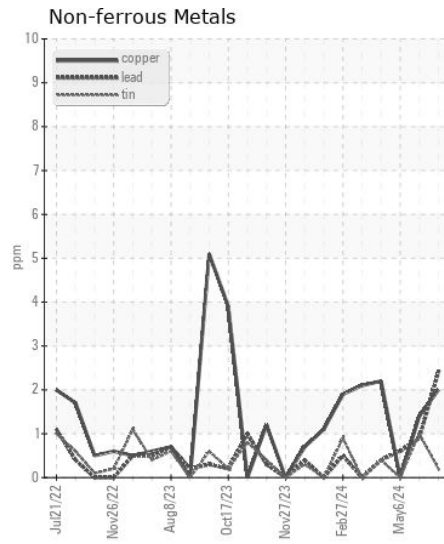
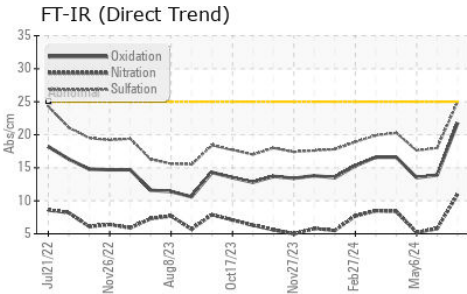
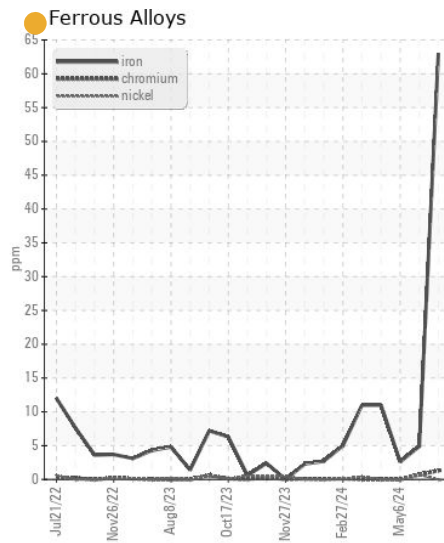
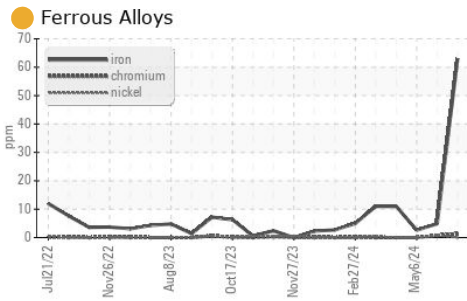
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	14	4	2
Potassium	ppm	ASTM D5185m	>20	6	3	<1
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	1.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	11.0	5.8	5.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.0	18.0	17.6
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		8	3	1
Boron	ppm	ASTM D5185m	0	5	<1	0
Barium	ppm	ASTM D5185m	0	<1	<1	0
Molybdenum	ppm	ASTM D5185m	60	63	61	61
Manganese	ppm	ASTM D5185m	0	1	<1	0
Magnesium	ppm	ASTM D5185m	1010	989	932	1026
Calcium	ppm	ASTM D5185m	1070	1138	1022	1094
Phosphorus	ppm	ASTM D5185m	1150	1056	952	1115
Zinc	ppm	ASTM D5185m	1270	1332	1189	1328
Sulfur	ppm	ASTM D5185m	2060	3187	2975	3847
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.8	13.9	13.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	4.8	7.9	8.1
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	13.7	14.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0127235
Lab Number : 06223323
Unique Number : 11101520
Test Package : FLEET

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)

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F: