



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
427124
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (40 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0110773	GFL0092867	WC0838326
Sample Date		Client Info		16 May 2024	22 Jan 2024	27 Nov 2023
Machine Age	hrs	Client Info		3906	3335	3084
Oil Age	hrs	Client Info		571	251	578
Filter Age	hrs	Client Info		571	251	578
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	3	4	5
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	2
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	2	3	6
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

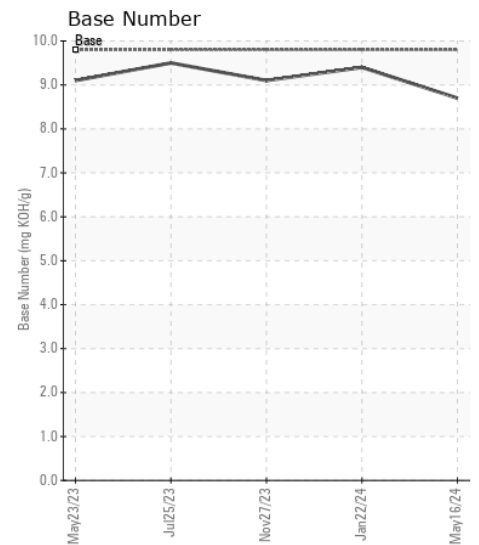
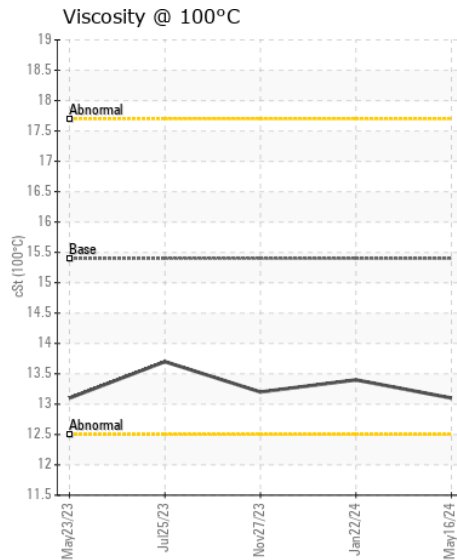
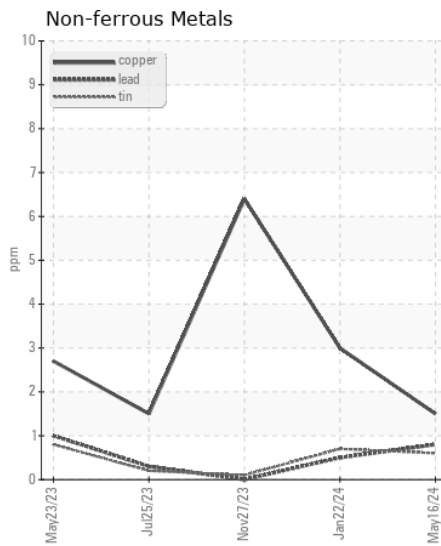
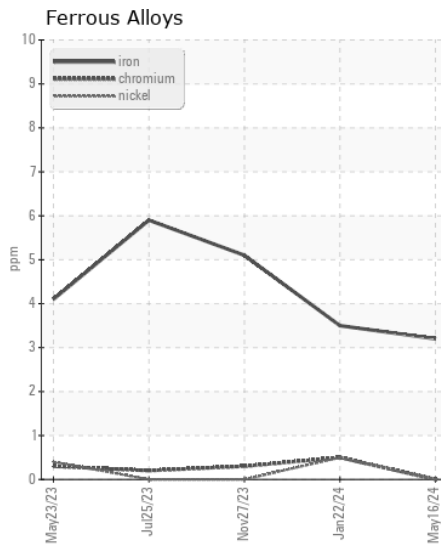
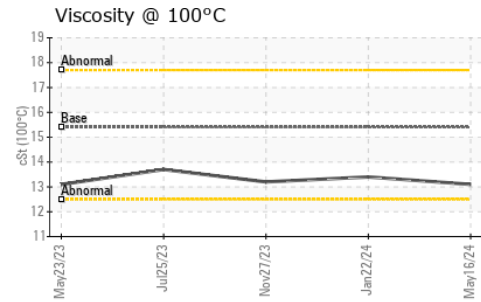
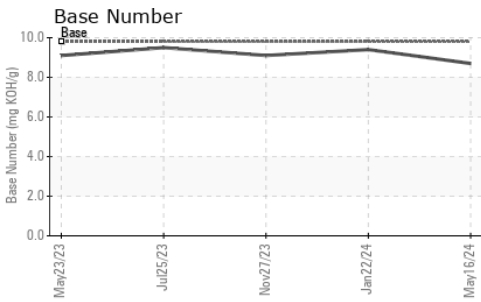
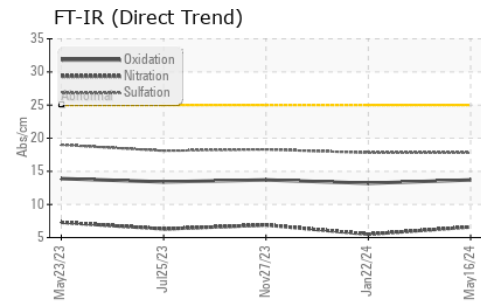
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	3	3	4
Potassium	ppm	ASTM D5185m	>20	0	2	3
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	0.2	0.2	0.5
Nitration	Abs/cm	*ASTM D7624	>20	6.6	5.5	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.8	17.8	18.3
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		<1	4	0
Boron	ppm	ASTM D5185m	0	13	4	4
Barium	ppm	ASTM D5185m	0	0	0	5
Molybdenum	ppm	ASTM D5185m	60	58	55	60
Manganese	ppm	ASTM D5185m	0	<1	<1	0
Magnesium	ppm	ASTM D5185m	1010	946	906	893
Calcium	ppm	ASTM D5185m	1070	1110	1049	1101
Phosphorus	ppm	ASTM D5185m	1150	1084	993	1015
Zinc	ppm	ASTM D5185m	1270	1215	1172	1187
Sulfur	ppm	ASTM D5185m	2060	3581	3316	3373
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.7	13.2	13.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.7	9.4	9.1
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	13.4	13.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0110773
Lab Number : 06187118
Unique Number : 11043870
Test Package : FLEET

Received : 21 May 2024
Tested : 23 May 2024
Diagnosed : 23 May 2024 - Wes Davis

GFL Environmental - 411 - Kingsford HC
 1001 E Blvd
 Kingsford, MI
 US 49802
 Contact: Service Manager

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: