



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(RB95347)
Machine Id
527064
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		GFL0110749	GFL0092845	GFL0085630
Sample Date		Client Info		21 Feb 2024	24 Nov 2023	31 Aug 2023
Machine Age	mls	Client Info		583880	564011	541924
Oil Age	mls	Client Info		19869	22087	3000
Filter Age	mls	Client Info		19869	22087	3000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	25	34	44
Chromium	ppm	ASTM D5185m	>5	<1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	2	3
Lead	ppm	ASTM D5185m	>150	4	4	11
Copper	ppm	ASTM D5185m	>90	<1	<1	<1
Tin	ppm	ASTM D5185m	>5	<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

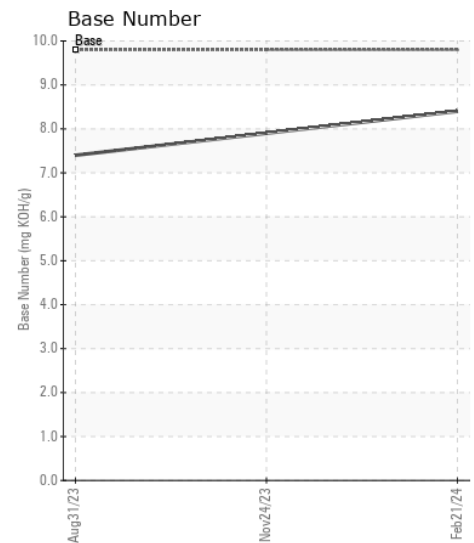
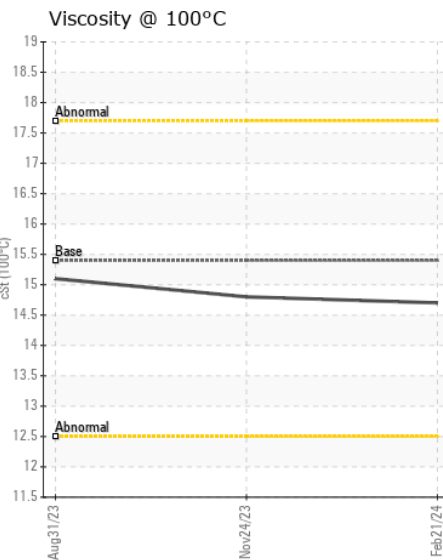
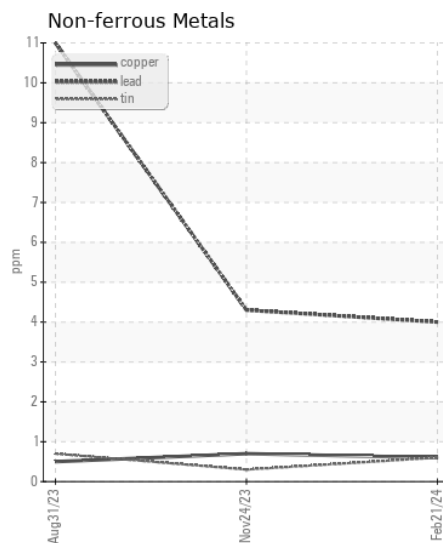
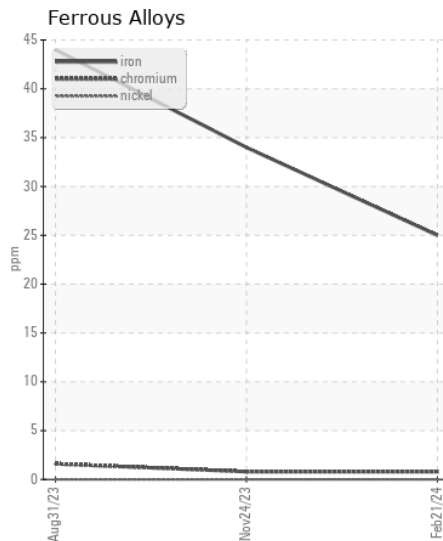
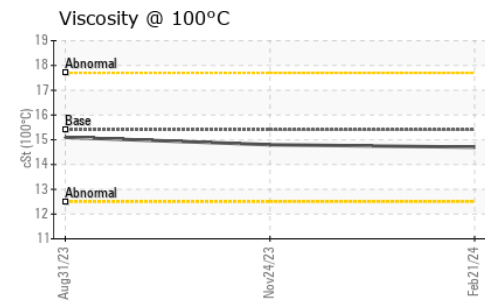
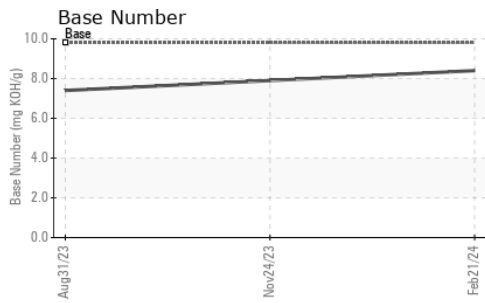
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>35	5	5	6
Potassium	ppm	ASTM D5185m	>20	1	4	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	>7.5	0.5	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	10.6	10.9	11.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.2	23.7	24.5
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	0	2
Boron	ppm	ASTM D5185m	0	10	3	8
Barium	ppm	ASTM D5185m	0	0	5	0
Molybdenum	ppm	ASTM D5185m	60	66	75	76
Manganese	ppm	ASTM D5185m	0	<1	0	<1
Magnesium	ppm	ASTM D5185m	1010	1082	1105	1262
Calcium	ppm	ASTM D5185m	1070	1202	1328	1475
Phosphorus	ppm	ASTM D5185m	1150	1213	1205	1340
Zinc	ppm	ASTM D5185m	1270	1437	1441	1645
Sulfur	ppm	ASTM D5185m	2060	3128	3360	3960
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.0	19.5	20.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.4	7.9	7.4
Visc @ 100°C	cSt	ASTM D445	15.4	14.7	14.8	15.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0110749
Lab Number : 06104986
Unique Number : 10903216
Test Package : FLEET

Received : 29 Feb 2024
Tested : 01 Mar 2024
Diagnosed : 01 Mar 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: