



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
812053
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		GFL0069928	GFL0069980	GFL0059589
Sample Date		Client Info		21 Mar 2024	30 Oct 2023	11 May 2023
Machine Age	hrs	Client Info		5165	4203	2865
Oil Age	hrs	Client Info		600	3603	0
Filter Age	hrs	Client Info		0	3603	0
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	>120	25	15	14
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>5	4	2	2
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	2	1	<1
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	3	3	3
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

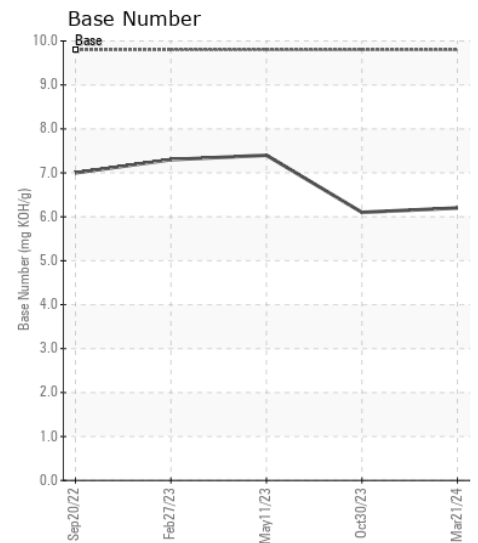
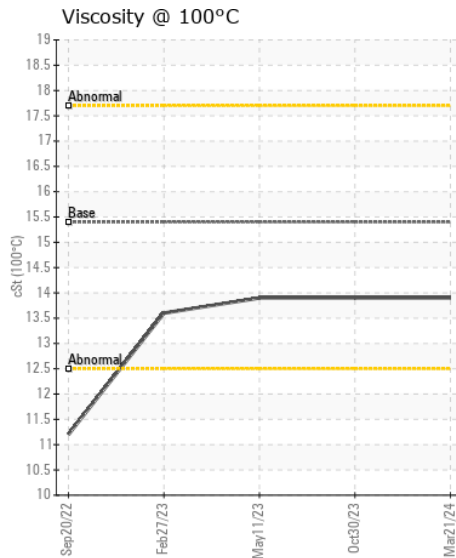
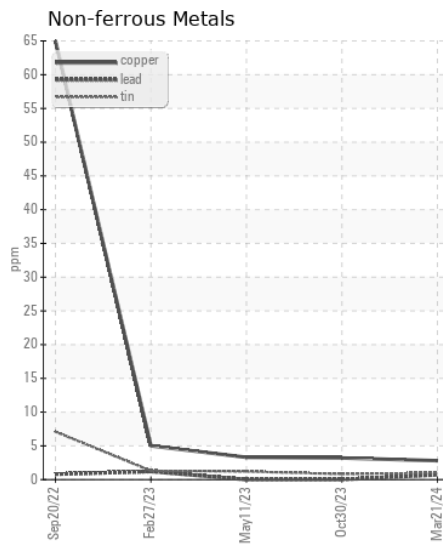
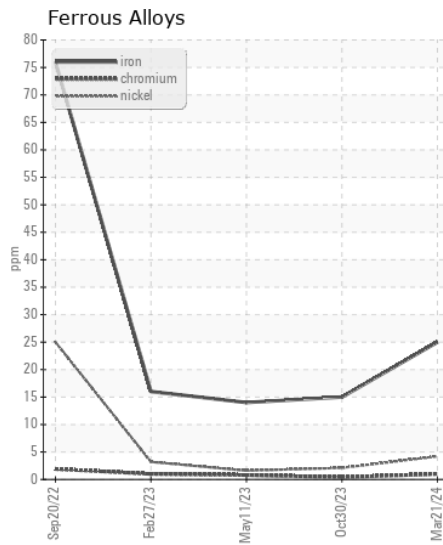
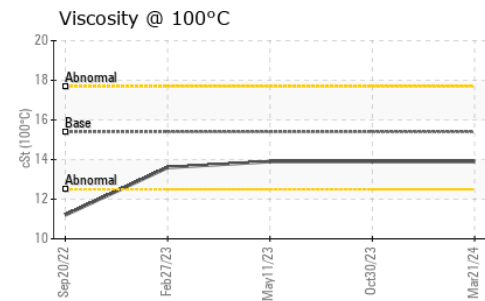
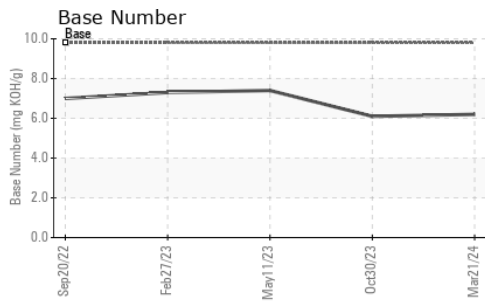
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	4	3
Potassium	ppm	ASTM D5185m	>20	2	<1	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	0.9
Nitration	Abs/cm	*ASTM D7624	>20	9.8	9.9	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.8	22.7	21.5
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		5	6	4
Boron	ppm	ASTM D5185m	0	<1	4	4
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	66	62	60
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1064	972	963
Calcium	ppm	ASTM D5185m	1070	1206	1102	1117
Phosphorus	ppm	ASTM D5185m	1150	1189	1011	968
Zinc	ppm	ASTM D5185m	1270	1413	1277	1269
Sulfur	ppm	ASTM D5185m	2060	2827	2392	3132
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.5	19.4	18.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.2	6.1	7.4
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	13.9	13.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0069928
 Lab Number : 06125493
 Unique Number : 10939644
 Test Package : FLEET

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

GFL Environmental - 902 - Chilton HC
 428 High St
 Chilton, WI
 US 53014

Contact: Keith Mueller
 keith.mueller@gflenv.com

T: (920)374-1404

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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