



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

(68227Z)

Machine Id

824009

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		GFL0106247	GFL0066977	GFL0067007
Sample Date		Client Info		13 Jun 2024	21 Dec 2023	19 Jul 2023
Machine Age	hrs	Client Info		16191	15604	14751
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	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	15	7	4
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	3	3
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	10	1	<1
Tin	ppm	ASTM D5185m	>15	0	<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

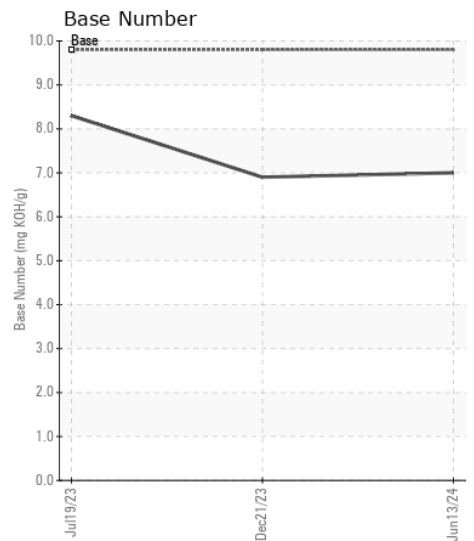
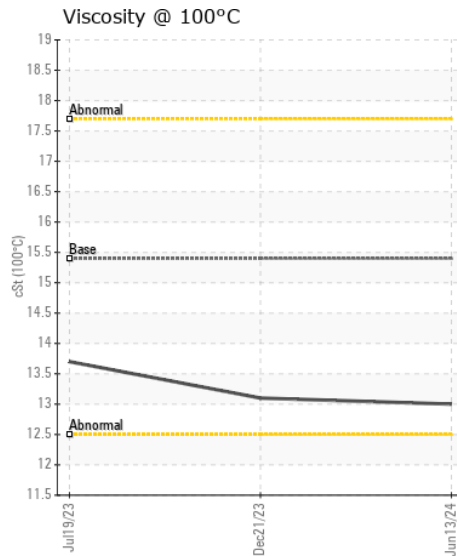
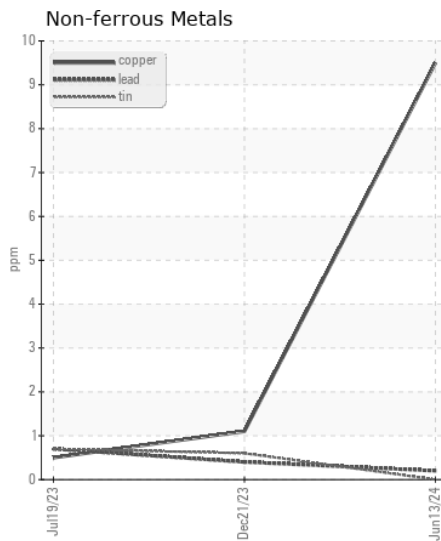
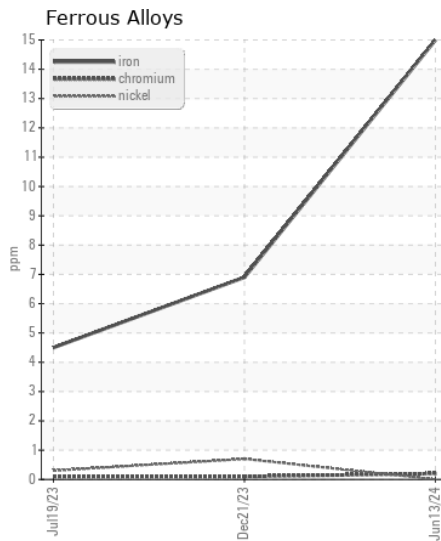
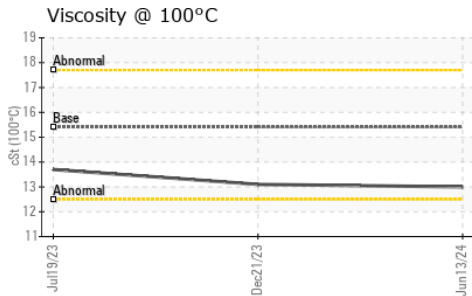
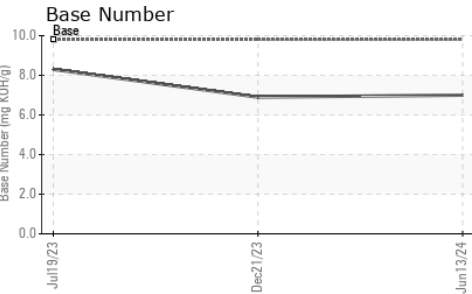
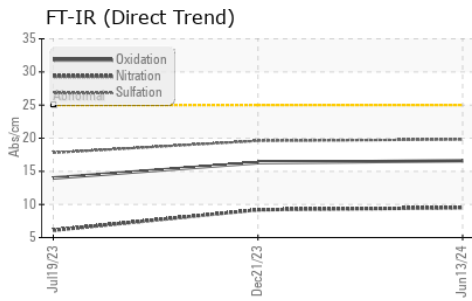
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	3	3	3
Potassium	ppm	ASTM D5185m	>20	2	2	2
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	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	9.5	9.2	6.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8	19.6	17.8
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		3	2	2
Boron	ppm	ASTM D5185m	0	5	7	12
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	59	55	59
Manganese	ppm	ASTM D5185m	0	0	<1	<1
Magnesium	ppm	ASTM D5185m	1010	911	868	902
Calcium	ppm	ASTM D5185m	1070	1063	985	1098
Phosphorus	ppm	ASTM D5185m	1150	919	1000	1025
Zinc	ppm	ASTM D5185m	1270	1241	1201	1246
Sulfur	ppm	ASTM D5185m	2060	2884	2970	3864
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.6	16.3	14.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.0	6.9	8.3
Visc @ 100°C	cSt	ASTM D445	15.4	13.0	13.1	13.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0106247 **Received** : 26 Jun 2024
Lab Number : 06220913 **Tested** : 27 Jun 2024
Unique Number : 11099110 **Diagnosed** : 27 Jun 2024 - Wes Davis
Test Package : FLEET

GFL Environmental - 916 - Greenbay HC
 1799 County Trunk PP
 DePere, WI
 US 54115
 Contact: Travis Runge
 travis.runge@gflenv.com
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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)