



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
720014-361495
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		GFL0103629	GFL0046118	GFL0046096
Sample Date		Client Info		15 May 2024	21 Dec 2023	10 Dec 2023
Machine Age	hrs	Client Info		0	450	450
Oil Age	hrs	Client Info		0	450	0
Filter Age	hrs	Client Info		0	450	0
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	28	4	20
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	3	<1	2
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	<1	0
Aluminum	ppm	ASTM D5185m	>20	6	2	4
Lead	ppm	ASTM D5185m	>40	2	<1	<1
Copper	ppm	ASTM D5185m	>330	3	<1	1
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

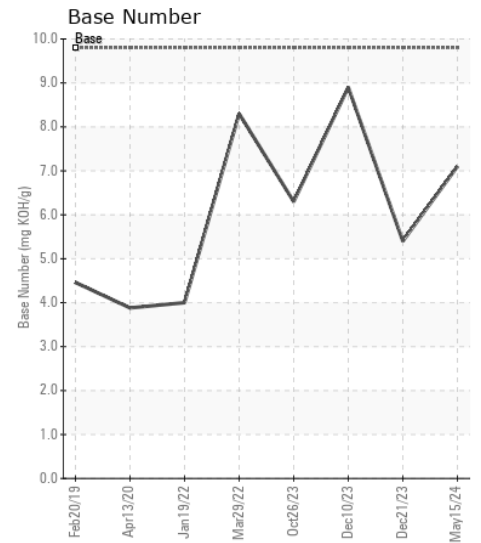
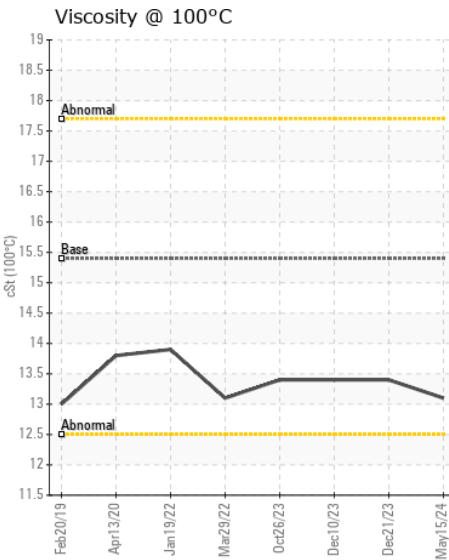
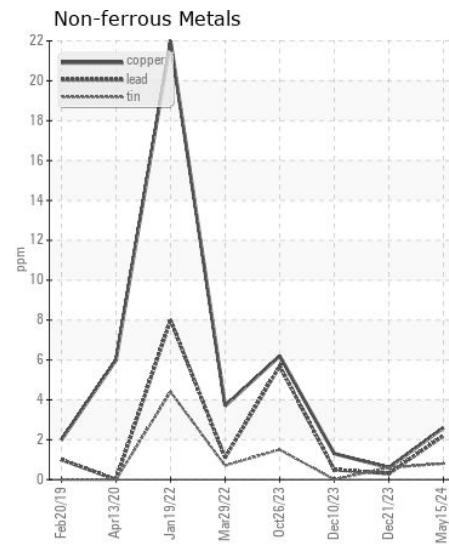
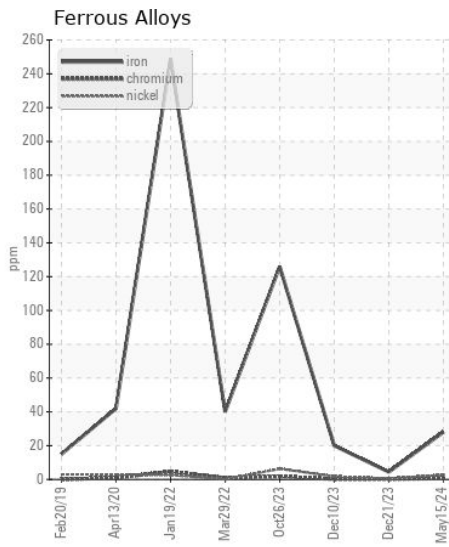
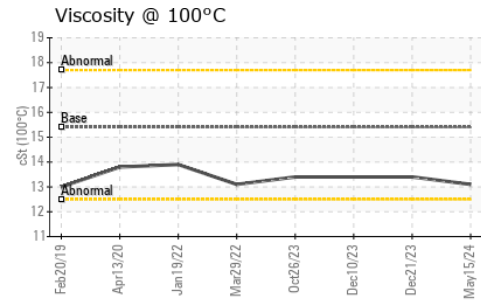
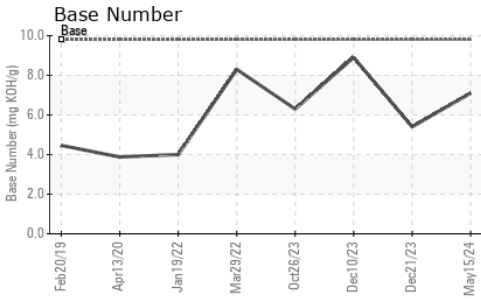
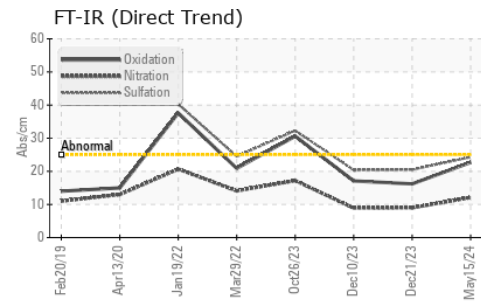
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	8	3	20
Potassium	ppm	ASTM D5185m	>20	4	2	0
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	0.2	0.7
Nitration	Abs/cm	*ASTM D7624	>20	12.1	9.0	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.3	20.5	20.4
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		6	5	4
Boron	ppm	ASTM D5185m	0	2	3	3
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	62	59	59
Manganese	ppm	ASTM D5185m	0	0	<1	<1
Magnesium	ppm	ASTM D5185m	1010	888	878	902
Calcium	ppm	ASTM D5185m	1070	1117	1014	1066
Phosphorus	ppm	ASTM D5185m	1150	1114	1003	1007
Zinc	ppm	ASTM D5185m	1270	1194	1239	1206
Sulfur	ppm	ASTM D5185m	2060	3309	2821	3044
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.7	16.2	17.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.1	5.4	8.9
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	13.4	13.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0103629
Lab Number : 06185890
Unique Number : 11042642
Test Package : FLEET

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

GFL Environmental - 834 - Chillicothe Hauling
 201 Mitchell Road
 Chillicothe, MO
 US 64601

Contact: Terry McKiddy
 tmckiddy@gflenv.com

T: (816)225-6699

F:

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)