



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
413065
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		GFL0112034	GFL0105480	GFL0094109
Sample Date		Client Info		12 Apr 2024	31 Jan 2024	01 Nov 2023
Machine Age	mls	Client Info		49996	41276	32468
Oil Age	mls	Client Info		49996	41276	32468
Filter Age	mls	Client Info		49996	0	0
Oil Changed		Client Info		Changed	N/A	N/A
Filter Changed		Client Info		Changed	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	7	4	2
Chromium	ppm	ASTM D5185m	>20	1	0	<1
Nickel	ppm	ASTM D5185m	>5	2	0	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	1	<1	2
Lead	ppm	ASTM D5185m	>40	1	0	<1
Copper	ppm	ASTM D5185m	>330	3	3	5
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.

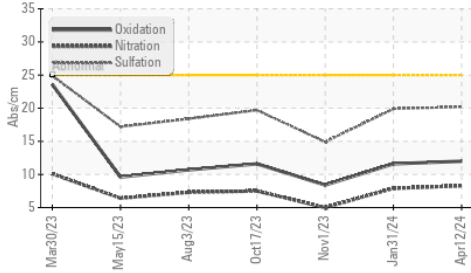
Silicon	ppm	ASTM D5185m	>25	7	7	7
Potassium	ppm	ASTM D5185m	>20	6	2	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.2	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.3	7.9	5.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.2	19.9	14.9
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

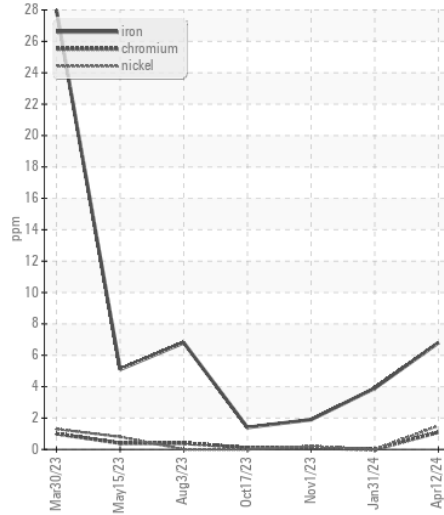
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	2	0
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m	0	0	0	5
Molybdenum	ppm	ASTM D5185m	60	54	55	49
Manganese	ppm	ASTM D5185m	0	1	0	<1
Magnesium	ppm	ASTM D5185m	1010	6	4	4
Calcium	ppm	ASTM D5185m	1070	2565	2487	2475
Phosphorus	ppm	ASTM D5185m	1150	1219	1120	1025
Zinc	ppm	ASTM D5185m	1270	1276	1299	1162
Sulfur	ppm	ASTM D5185m	2060	3753	3345	3006
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.0	11.6	8.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.2	6.0	8.1
Visc @ 100°C	cSt	ASTM D445	15.4	12.6	13.0	12.9

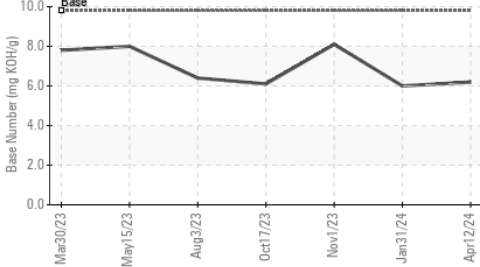
FT-IR (Direct Trend)



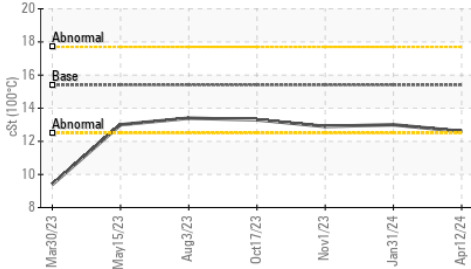
Ferrous Alloys



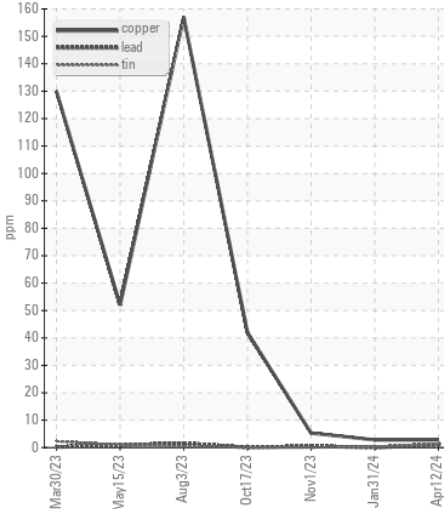
Base Number



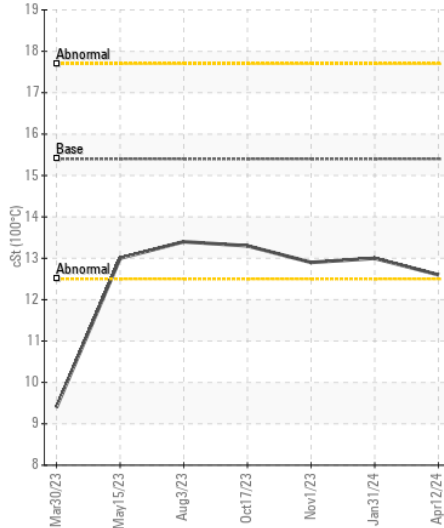
Viscosity @ 100°C



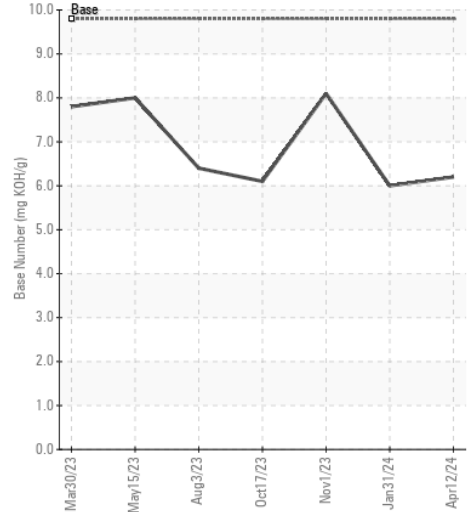
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0112034
Lab Number : 06152759
Unique Number : 10982837
Test Package : FLEET

Received : 18 Apr 2024
Tested : 18 Apr 2024
Diagnosed : 22 Apr 2024 - Don Baldrige

GFL Environmental - 983 - Sugar Land Hauling
 16011 West Belfort Street
 Sugar Land, TX
 US 77498
 Contact: Adrian Martinez
 adrianmartinez@gflenv.com

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)

T:
F: