



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(EDB493)
Machine Id
3709C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON SHP 15W40 (8 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0111542	GFL0083162	GFL0083178
Sample Date		Client Info		12 Mar 2024	15 Jun 2023	24 May 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

Cylinder, crank, or cam shaft wear is indicated. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	▲ 53	12	19
Chromium	ppm	ASTM D5185m	>4	3	2	2
Nickel	ppm	ASTM D5185m	>2	1	<1	1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>9	5	6	6
Lead	ppm	ASTM D5185m	>30	<1	2	3
Copper	ppm	ASTM D5185m	>35	3	13	24
Tin	ppm	ASTM D5185m	>4	<1	<1	1
Vanadium	ppm	ASTM D5185m		<1	<1	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.

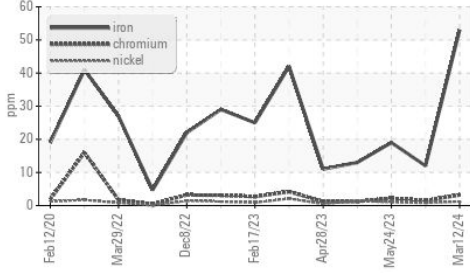
Silicon	ppm	ASTM D5185m	>+100	9	4	5
Potassium	ppm	ASTM D5185m	>20	2	1	3
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		2.9	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.9	11.6	11.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.7	23.7	22.7
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	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	>0.1	NEG	NEG	NEG

FLUID CONDITION

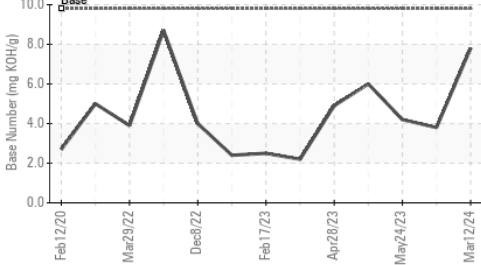
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	4	11
Boron	ppm	ASTM D5185m	0	3	3	5
Barium	ppm	ASTM D5185m	0	2	0	0
Molybdenum	ppm	ASTM D5185m	60	65	60	64
Manganese	ppm	ASTM D5185m	0	<1	1	2
Magnesium	ppm	ASTM D5185m	1010	968	598	609
Calcium	ppm	ASTM D5185m	1070	1217	1701	1688
Phosphorus	ppm	ASTM D5185m	1150	1080	689	699
Zinc	ppm	ASTM D5185m	1270	1297	994	1013
Sulfur	ppm	ASTM D5185m	2060	3398	2824	2732
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.7	20.0	19.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.8	3.8	4.2
Visc @ 100°C	cSt	ASTM D445	15.4	15.0	14.0	14.1

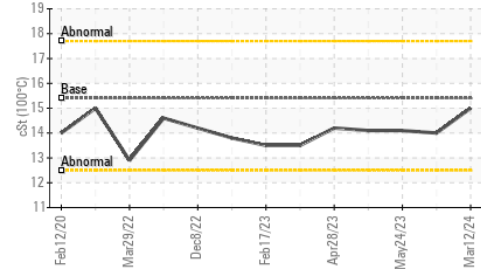
▲ Ferrous Alloys



Base Number



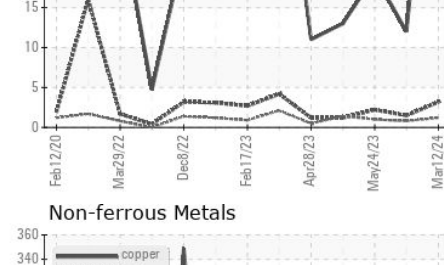
Viscosity @ 100°C



▲ Ferrous Alloys



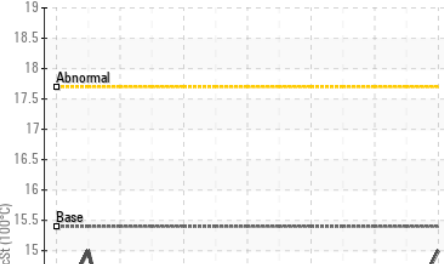
Base Number



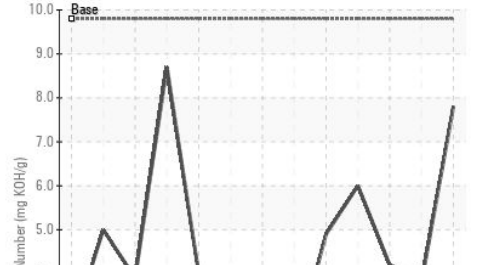
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0111542

Lab Number : 06124773

Unique Number : 10938924

Test Package : FLEET

Received : 21 Mar 2024

Tested : 22 Mar 2024

Diagnosed : 24 Mar 2024 - Don Baldrige

GFL Environmental - 074 - Douglas - Transwaste

1219 Landfill Road

Douglas, GA

US 31533

Contact: CURTIS JACOBS

CURTIS.JACOBS@GFLENV.COM

T: (912)384-6001

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)