



Machine Id
727096-310021

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0104002	GFL0093275	GFL0093225
Sample Date		Client Info		09 Feb 2024	04 Oct 2023	04 Sep 2023
Machine Age	mls	Client Info		16078	141662	15373
Oil Age	mls	Client Info		0	141662	15373
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	24	8	22
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	1	4
Lead	ppm	ASTM D5185m	>40	<1	0	1
Copper	ppm	ASTM D5185m	>330	81	10	1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Test for glycol is positive. There is a high concentration of glycol present in the oil.

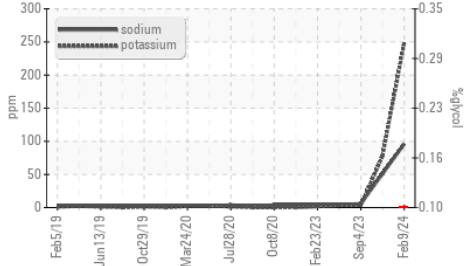
Silicon	ppm	ASTM D5185m	>25	11	4	7
Potassium	ppm	ASTM D5185m	>20	248	78	4
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		0.10	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.8	0.4	0.7
Nitration	Abs/cm	*ASTM D7624	>20	10.3	7.2	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2	18.8	21.2
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

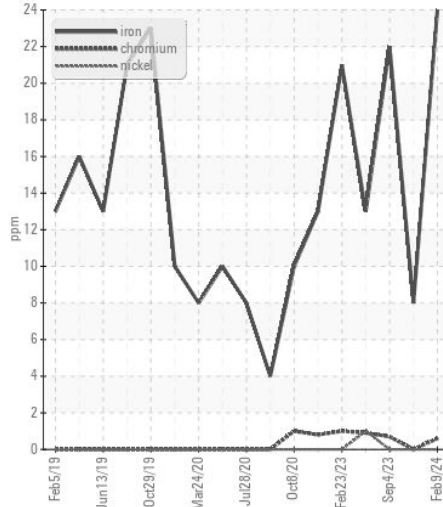
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		96	51	6
Boron	ppm	ASTM D5185m	0	6	11	5
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	75	68	62
Manganese	ppm	ASTM D5185m	0	<1	0	<1
Magnesium	ppm	ASTM D5185m	1010	858	955	1000
Calcium	ppm	ASTM D5185m	1070	1044	1061	1270
Phosphorus	ppm	ASTM D5185m	1150	951	993	1046
Zinc	ppm	ASTM D5185m	1270	1170	1228	1358
Sulfur	ppm	ASTM D5185m	2060	2595	3011	3613
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.5	14.4	17.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.9	8.9	7.3
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	14.4	14.5

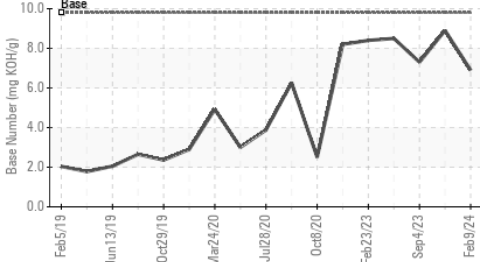
Glycol Contamination



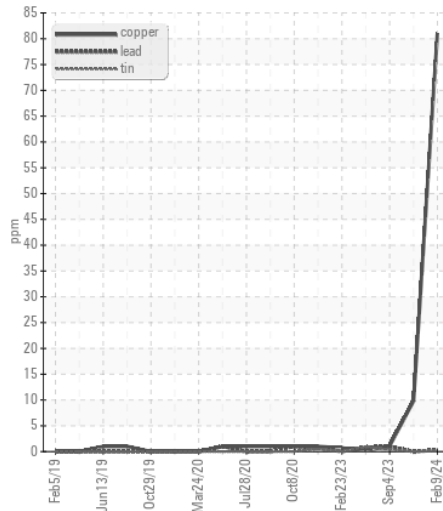
Ferrous Alloys



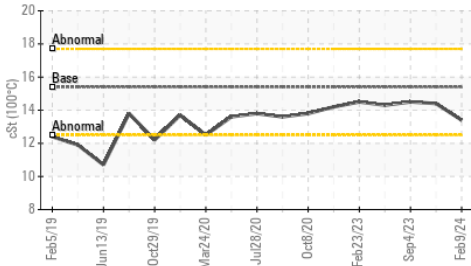
Base Number



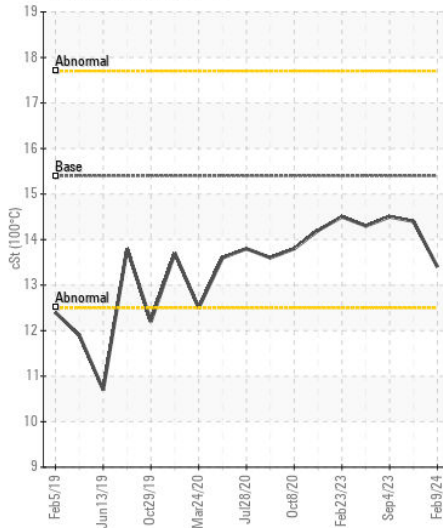
Non-ferrous Metals



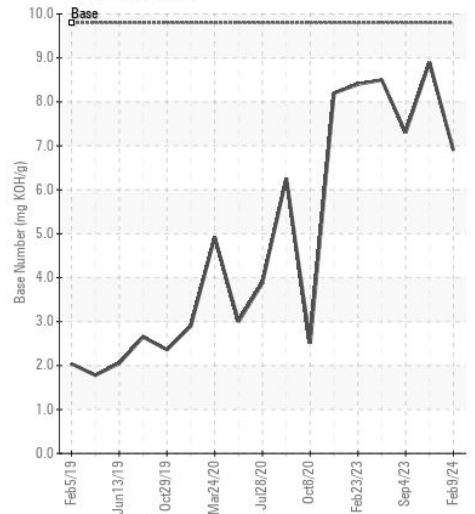
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0104002 **Received** : 22 Feb 2024
Lab Number : 06097531 **Tested** : 26 Feb 2024
Unique Number : 10890384 **Diagnosed** : 26 Feb 2024 - Wes Davis
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 865 - East Mount Hauling
 7213 East Mount Houston Road
 Houston, TX
 US 77050
 Contact: Saul Castillo
 saul.castillo@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: