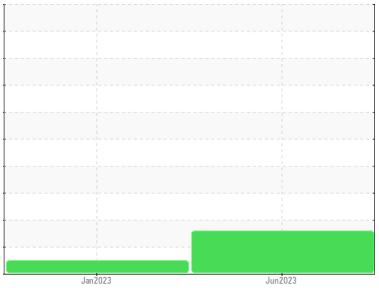
PROBLEM SUMMARY

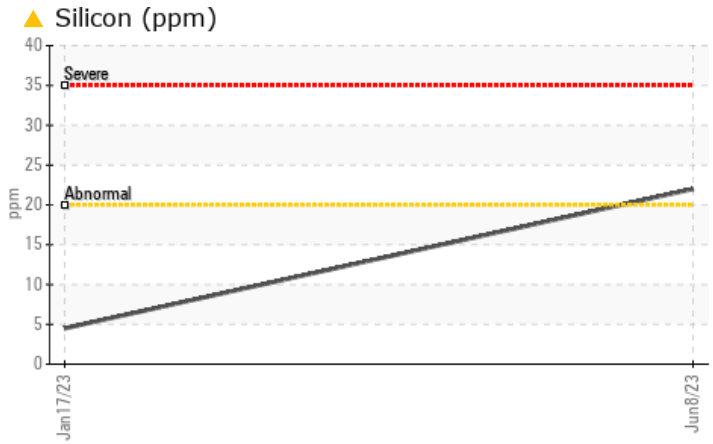
Sample Rating Trend



DIRT

Machine Id
522020-120
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	NORMAL	---
Silicon	ppm	ASTM D5185m	>20	▲ **22**	4	---

Customer Id: GFL904
Sample No.: GFL0060342
Lab Number: 05884910
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

17 Jan 2023 Diag: Don Baldridge

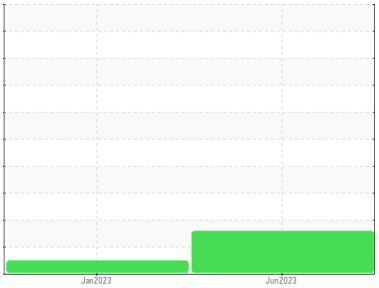
NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Machine Id
522020-120
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

DIAGNOSIS

Recommendation
Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
Elemental level of silicon (Si) above normal.

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.

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number		Client Info		**GFL0060342**	GFL0055741	---
Sample Date		Client Info		**08 Jun 2023**	17 Jan 2023	---
Machine Age	hrs	Client Info		**19903**	19171	---
Oil Age	hrs	Client Info		**600**	500	---
Oil Changed		Client Info		**Changed**	Changed	---
Sample Status				**ABNORMAL**	NORMAL	---

CONTAMINATION		method	limit/base	current	history 1	history 2
Fuel		WC Method	>5	**<1.0**	<1.0	---
Glycol		WC Method		**NEG**	NEG	---

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>80	**6**	11	---
Chromium	ppm	ASTM D5185m	>5	**<1**	<1	---
Nickel	ppm	ASTM D5185m	>2	**0**	0	---
Titanium	ppm	ASTM D5185m		**0**	0	---
Silver	ppm	ASTM D5185m	>3	**0**	0	---
Aluminum	ppm	ASTM D5185m	>30	**1**	<1	---
Lead	ppm	ASTM D5185m	>30	**2**	9	---
Copper	ppm	ASTM D5185m	>150	**0**	1	---
Tin	ppm	ASTM D5185m	>5	**<1**	<1	---
Vanadium	ppm	ASTM D5185m		**0**	0	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	**13**	23	---
Barium	ppm	ASTM D5185m	0	**0**	0	---
Molybdenum	ppm	ASTM D5185m	60	**66**	62	---
Manganese	ppm	ASTM D5185m	0	**<1**	<1	---
Magnesium	ppm	ASTM D5185m	1010	**1000**	873	---
Calcium	ppm	ASTM D5185m	1070	**1147**	1371	---
Phosphorus	ppm	ASTM D5185m	1150	**1036**	989	---
Zinc	ppm	ASTM D5185m	1270	**1343**	1265	---
Sulfur	ppm	ASTM D5185m	2060	**3629**	3416	---

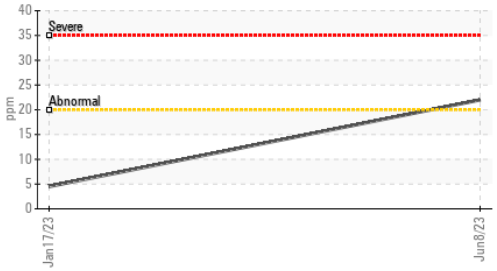
CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>20	▲ **22**	4	---
Sodium	ppm	ASTM D5185m		**2**	3	---
Potassium	ppm	ASTM D5185m	>20	**1**	<1	---

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	>3	**0.2**	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	**8.1**	9.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	**20.4**	21.2	---

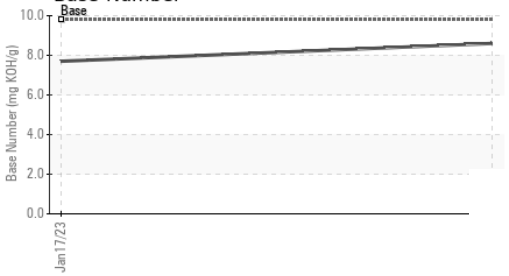
FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**16.3**	17.3	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**8.6**	7.7	---

OIL ANALYSIS REPORT

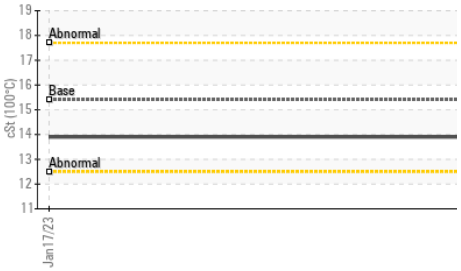
Silicon (ppm)



Base Number



Viscosity @ 100°C

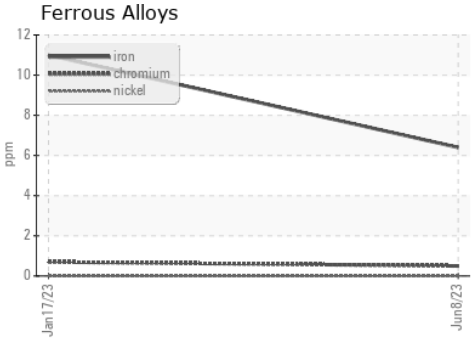


VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	**NONE**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	NONE	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	---
Free Water	scalar	*Visual		**NEG**	NEG	---

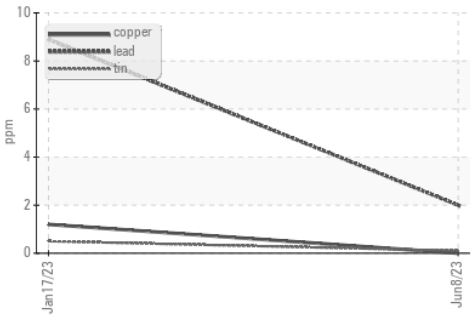
FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4	**13.9**	13.9	---

GRAPHS

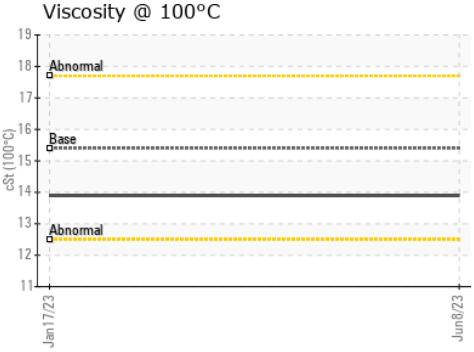
Ferrous Alloys



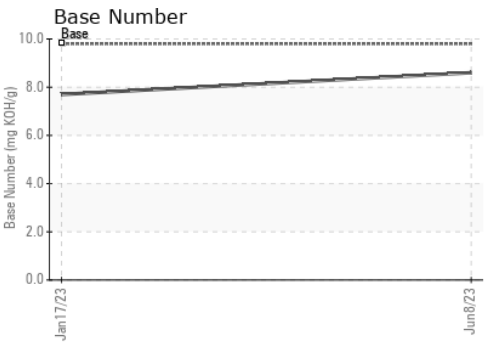
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0060342
Lab Number : 05884910
Unique Number : 10535393
Test Package : FLEET

Received : 27 Jun 2023
Diagnosed : 30 Jun 2023
Diagnostician : Don Baldridge

GFL Environmental - 904 - Chippewa Falls HC
11888 & 11863 30th Avenue
Chippewa Falls, WI
US 54729
Contact: Andy Kane

T: (715)202-3420
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)