



PROBLEM SUMMARY

Sample Rating Trend

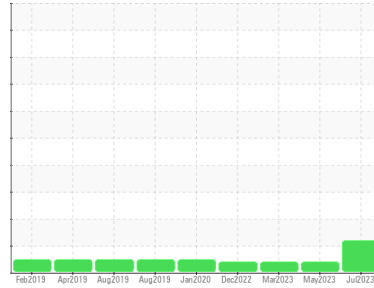
WEAR



Machine Id
721024-361461

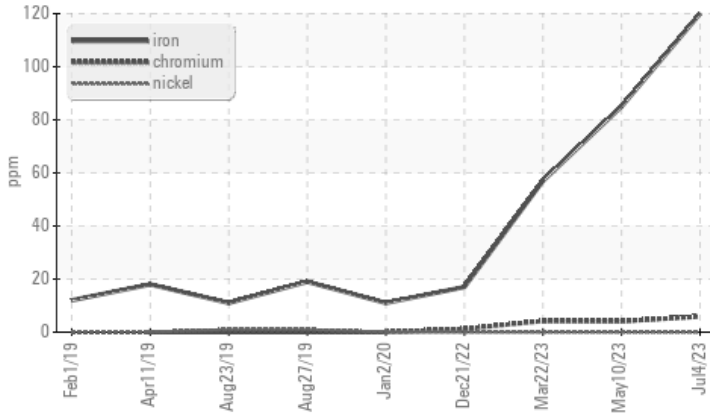
Component
Diesel Engine

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

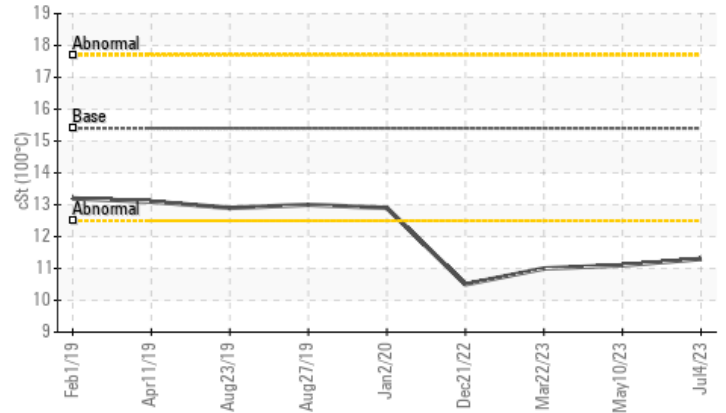


COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



▲ Viscosity @ 100°C



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ATTENTION	ATTENTION
Iron	ppm	ASTM D5185m	>100	▲ 120	85	57
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.3	▲ 11.1	▲ 11.0

Customer Id: GFL821
Sample No.: GFL0076779
Lab Number: 05892057
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

10 May 2023 Diag: Don Baldrige

VISCOSITY



No corrective action is recommended at this time. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report



22 Mar 2023 Diag: Jonathan Hester

VISCOSITY



No corrective action is recommended at this time. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report



21 Dec 2022 Diag: Jonathan Hester

VISCOSITY



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report





OIL ANALYSIS REPORT

Sample Rating Trend

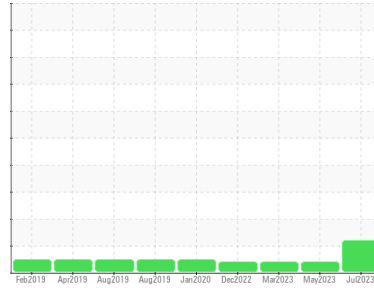
WEAR



Machine Id
721024-361461

Component
Diesel Engine

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



DIAGNOSIS

- Recommendation**
No corrective action is recommended at this time. Resample at the next service interval to monitor.
- Wear**
Cylinder, crank, or cam shaft wear is indicated.
- Contamination**
There is no indication of any contamination in the oil.
- Fluid Condition**
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

method	limit/base	current	history 1	history 2
Sample Number	Client Info	GFL0076779	GFL0076825	GFL0051323
Sample Date	Client Info	04 Jul 2023	10 May 2023	22 Mar 2023
Machine Age	hrs	5854	5485	5132
Oil Age	hrs	150	200	0
Oil Changed	Client Info	Not Changed	Not Changed	Not Changed
Sample Status		ABNORMAL	ATTENTION	ATTENTION

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history 1	history 2
Iron	ppm ASTM D5185m >100	▲ 120	85	57
Chromium	ppm ASTM D5185m >20	6	4	4
Nickel	ppm ASTM D5185m >4	0	0	0
Titanium	ppm ASTM D5185m	<1	<1	0
Silver	ppm ASTM D5185m >3	0	0	0
Aluminum	ppm ASTM D5185m >20	6	6	4
Lead	ppm ASTM D5185m >40	10	6	4
Copper	ppm ASTM D5185m >330	14	10	5
Tin	ppm ASTM D5185m >15	6	5	4
Vanadium	ppm ASTM D5185m	0	0	<1
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history 1	history 2
Boron	ppm ASTM D5185m 0	9	8	10
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 60	65	58	57
Manganese	ppm ASTM D5185m 0	2	1	2
Magnesium	ppm ASTM D5185m 1010	950	877	841
Calcium	ppm ASTM D5185m 1070	1198	1145	1139
Phosphorus	ppm ASTM D5185m 1150	1027	956	905
Zinc	ppm ASTM D5185m 1270	1330	1203	1146
Sulfur	ppm ASTM D5185m 2060	3440	3064	2994

CONTAMINANTS

method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185m >25	25	21	20
Sodium	ppm ASTM D5185m	12	11	9
Potassium	ppm ASTM D5185m >20	3	1	0

INFRA-RED

method	limit/base	current	history 1	history 2
Soot %	% *ASTM D7844 >3	1.2	0.9	0.5
Nitration	Abs/cm *ASTM D7624 >20	13.2	12.0	9.6
Sulfation	Abs/.1mm *ASTM D7415 >30	24.2	22.6	19.8

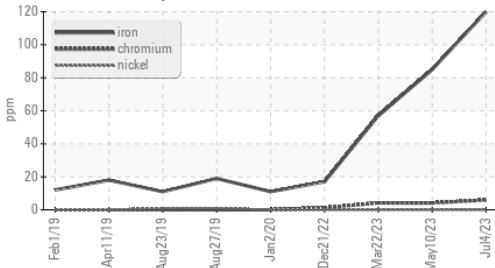
FLUID DEGRADATION

method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm *ASTM D7414 >25	21.2	20.1	16.2
Base Number (BN)	mg KOH/g ASTM D2896 9.8	6.9	7.0	8.4

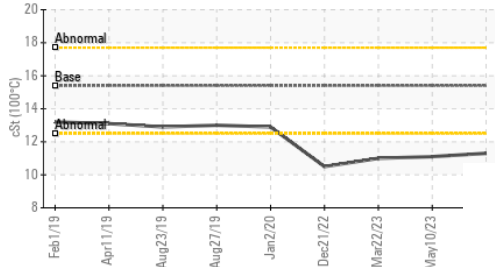


OIL ANALYSIS REPORT

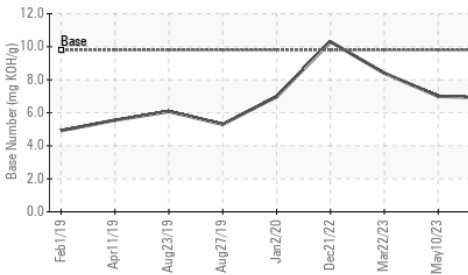
▲ Ferrous Alloys



▲ Viscosity @ 100°C



Base Number

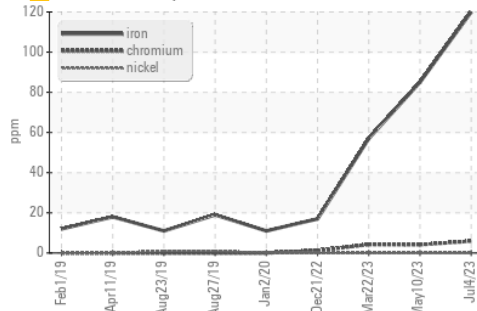


VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

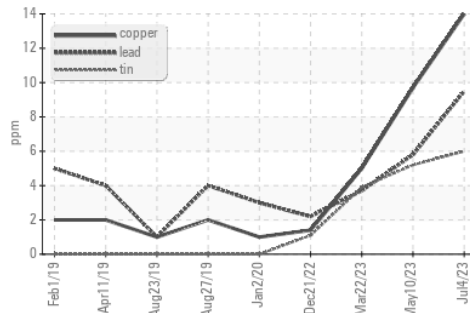
FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4 ▲ 11.3	▲ 11.1	▲ 11.0

GRAPHS

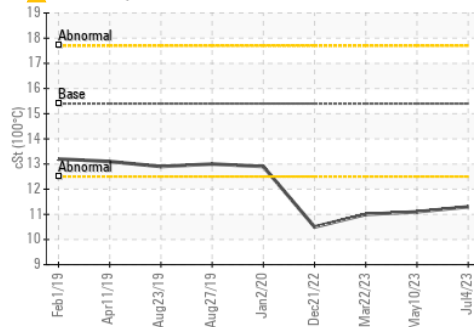
▲ Ferrous Alloys



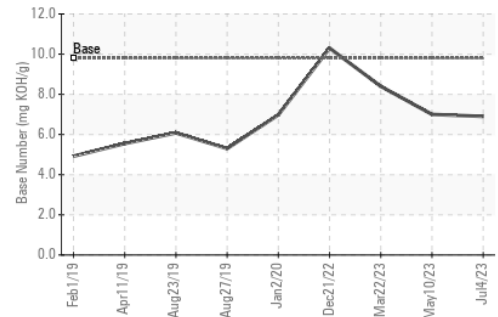
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0076779
Lab Number : 05892057
Unique Number : 10547867
Test Package : FLEET

GFL Environmental - 821 - Ozarks Hauling
 33924 Olath Drive
 Lebanon, MO
 US 65536
 Contact: Landen Johnson
 landen.johnson@gflenv.com
 T: (417)664-0010
 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)