



OIL ANALYSIS REPORT

Sample Rating Trend

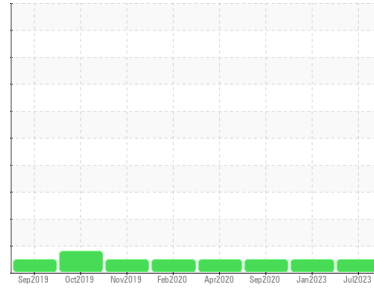
NORMAL



Machine Id
725048-101260

Component
Diesel Engine

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



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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	history1	history2	
Sample Number	Client Info	GFL0087731	GFL0062966	GFLI-538118	
Sample Date	Client Info	13 Jul 2023	19 Jan 2023	08 Sep 2020	
Machine Age	hrs	Client Info	12142	0	7457
Oil Age	hrs	Client Info	0	0	446
Oil Changed	Client Info	Changed	Changed	Changed	
Sample Status		NORMAL	NORMAL	NORMAL	

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	0.5
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >80	17	27	16
Chromium	ppm	ASTM D5185m >5	<1	1	0
Nickel	ppm	ASTM D5185m >2	0	<1	0
Titanium	ppm	ASTM D5185m	0	<1	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >30	5	9	11
Lead	ppm	ASTM D5185m >30	0	1	0
Copper	ppm	ASTM D5185m >150	3	1	1
Tin	ppm	ASTM D5185m >5	0	<1	1
Antimony	ppm	ASTM D5185m	---	---	1
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	3	2	310
Barium	ppm	ASTM D5185m 0	<1	4	0
Molybdenum	ppm	ASTM D5185m 60	65	62	144
Manganese	ppm	ASTM D5185m 0	<1	<1	0
Magnesium	ppm	ASTM D5185m 1010	1033	919	689
Calcium	ppm	ASTM D5185m 1070	1169	1050	1675
Phosphorus	ppm	ASTM D5185m 1150	1121	976	795
Zinc	ppm	ASTM D5185m 1270	1358	1254	939
Sulfur	ppm	ASTM D5185m 2060	3844	3278	---
Lithium	ppm	ASTM D5185m	---	---	2

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >20	4	6	9
Sodium	ppm	ASTM D5185m	29	62	101
Potassium	ppm	ASTM D5185m >20	<1	3	1

INFRA-RED

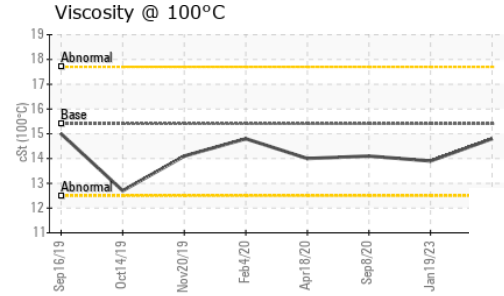
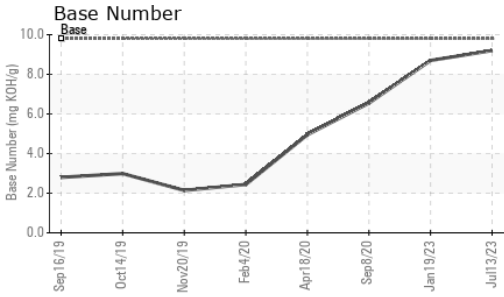
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	0.6	0.6	0.3
Nitration	Abs/cm	*ASTM D7624 >20	7.6	9.8	8
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.4	19.8	---

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.8	16.5	14
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	9.2	8.7	6.55



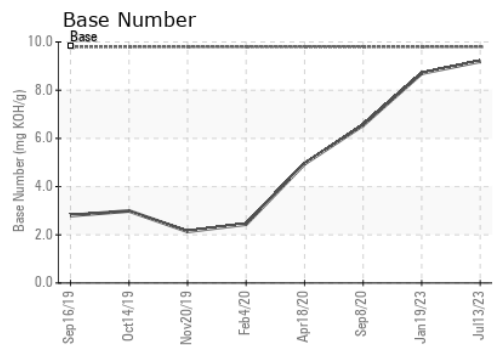
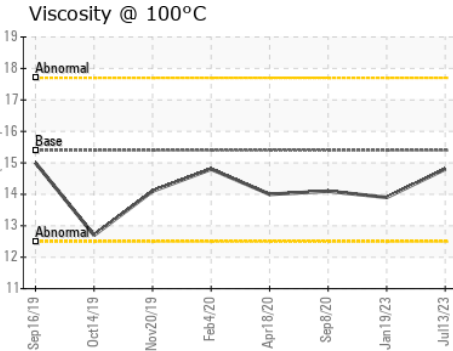
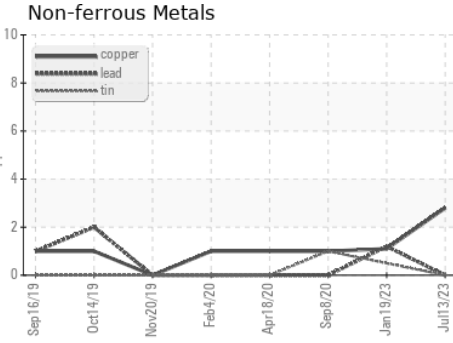
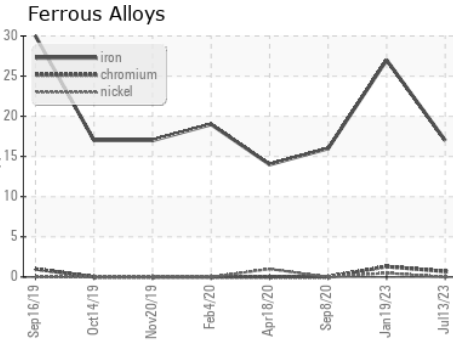
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VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	14.8	13.9	14.1

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0087731
Lab Number : 05904797
Unique Number : 10566153
Test Package : FLEET

GFL Environmental - 837 - Harrison TS
 22820 S State Route 291
 Harrisonville, MO
 US 64701
 Contact: Robert Hart

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)

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