



OIL ANALYSIS REPORT

Sample Rating Trend

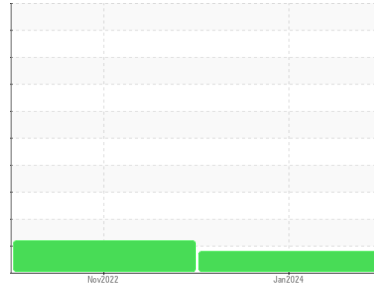
FUEL



Area
(FB50678)
Machine Id
211008

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

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected 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	GFL0108538	GFL0055729	---
Sample Date	Client Info	26 Jan 2024	15 Nov 2022	---
Machine Age	hrs	Client Info	0	500
Oil Age	hrs	Client Info	0	500
Oil Changed	Client Info	N/A	Changed	---
Sample Status		MARGINAL	ABNORMAL	---

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG
Glycol	WC Method		NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	20	142
Chromium	ppm	ASTM D5185m	>20	<1	10
Nickel	ppm	ASTM D5185m	>2	0	2
Titanium	ppm	ASTM D5185m	>2	<1	<1
Silver	ppm	ASTM D5185m	>2	2	4
Aluminum	ppm	ASTM D5185m	>25	2	8
Lead	ppm	ASTM D5185m	>40	0	2
Copper	ppm	ASTM D5185m	>330	2	23
Tin	ppm	ASTM D5185m	>15	0	<1
Vanadium	ppm	ASTM D5185m		0	<1
Cadmium	ppm	ASTM D5185m		0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	0	3	25
Barium	ppm	ASTM D5185m	0	25	0
Molybdenum	ppm	ASTM D5185m	60	58	71
Manganese	ppm	ASTM D5185m	0	0	6
Magnesium	ppm	ASTM D5185m	1010	837	258
Calcium	ppm	ASTM D5185m	1070	1019	1712
Phosphorus	ppm	ASTM D5185m	1150	1020	920
Zinc	ppm	ASTM D5185m	1270	1116	1130
Sulfur	ppm	ASTM D5185m	2060	3085	3203

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	4	14
Sodium	ppm	ASTM D5185m		0	6
Potassium	ppm	ASTM D5185m	>20	3	0
Fuel	%	ASTM D3524	>5	▲ 4.5	▲ 7.5

INFRA-RED

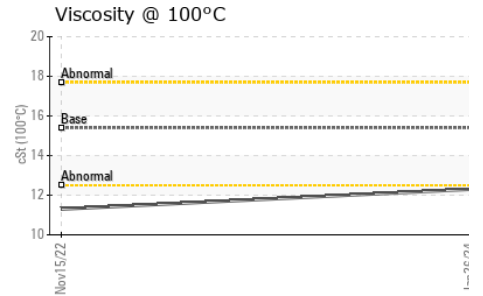
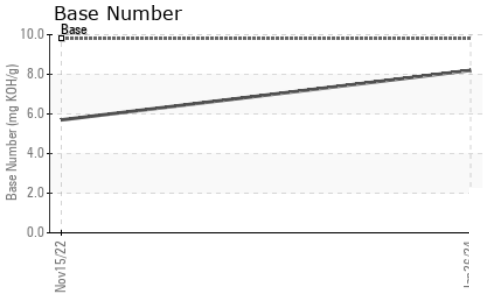
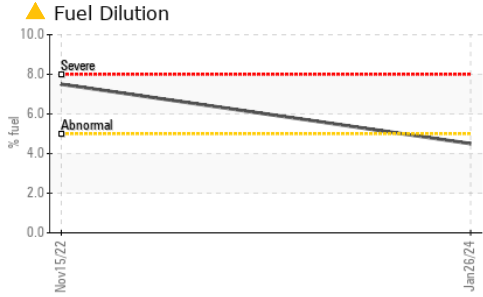
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.4	1.1
Nitration	Abs/cm	*ASTM D7624	>20	10.7	17.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.5	34.5

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.0	34.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.2	5.7



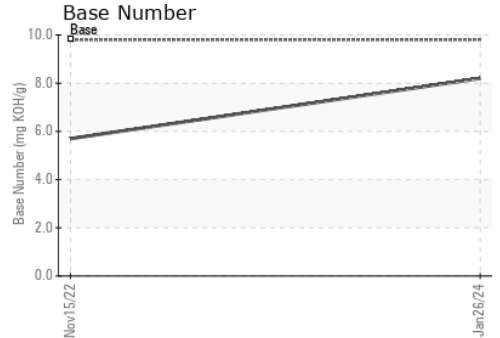
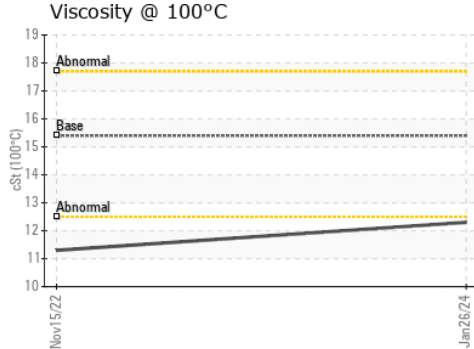
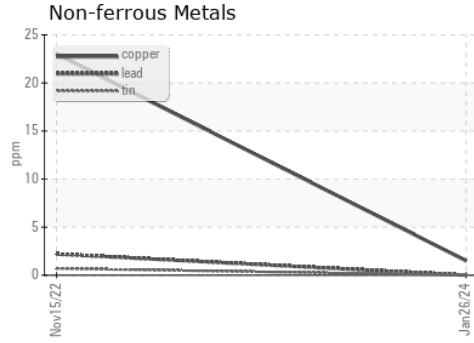
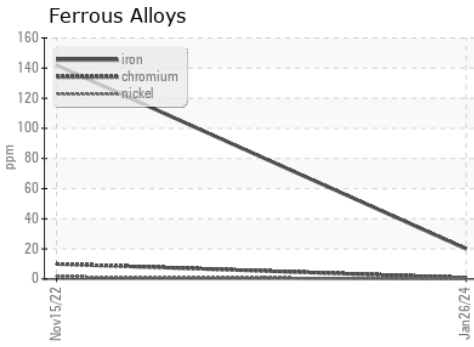
OIL ANALYSIS REPORT



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	12.3	▲ 11.3

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0108538
 Lab Number : 06084533
 Unique Number : 10871978
 Test Package : FLEET (Additional Tests: PercentFuel)

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

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: (715)202-3420

F: