



# OIL ANALYSIS REPORT

Sample Rating Trend

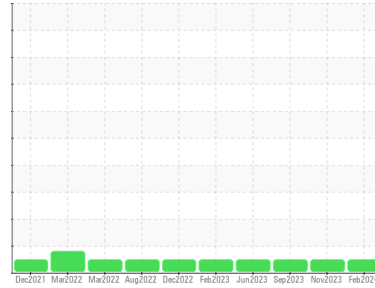
**NORMAL**



Machine Id  
**426036-713**

Component  
**Diesel Engine**

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



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Services completed )

### 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

Sample Number	Client Info	method	limit/base	current	history1	history2
GFL0094891					GFL0094866	GFL0064411
08 Feb 2024					22 Nov 2023	12 Sep 2023
Machine Age	hrs	Client Info		15567	15521	15493
Oil Age	hrs	Client Info		275	229	200
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

## CONTAMINATION

Fuel	WC Method	limit/base	current	history1	history2
>5		<1.0	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

## WEAR METALS

Iron	ppm	ASTM D5185m	limit/base	current	history1	history2
>100		15	17	14		
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	2	3
Lead	ppm	ASTM D5185m	>40	2	2	1
Copper	ppm	ASTM D5185m	>330	0	1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	<1	0

## ADDITIVES

Boron	ppm	ASTM D5185m	limit/base	current	history1	history2
0		5	3	4		
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	63	65	62
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	962	985	1059
Calcium	ppm	ASTM D5185m	1070	1058	1143	1218
Phosphorus	ppm	ASTM D5185m	1150	1088	995	1079
Zinc	ppm	ASTM D5185m	1270	1305	1255	1360
Sulfur	ppm	ASTM D5185m	2060	3152	3128	3886

## CONTAMINANTS

Silicon	ppm	ASTM D5185m	limit/base	current	history1	history2
>25		5	5	4		
Sodium	ppm	ASTM D5185m		4	0	4
Potassium	ppm	ASTM D5185m	>20	5	6	5

## INFRA-RED

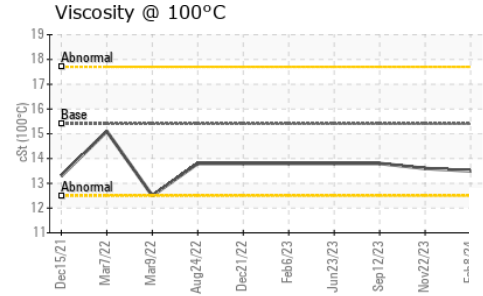
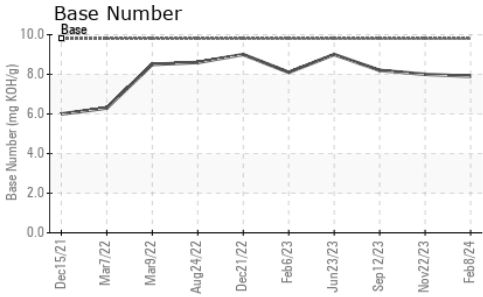
Soot %	%	*ASTM D7844	limit/base	current	history1	history2
>3		0.5	0.5	0.5		
Nitration	Abs/cm	*ASTM D7624	>20	9.0	8.8	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.9	20.2	18.9

## FLUID DEGRADATION

Oxidation	Abs/.1mm	*ASTM D7414	limit/base	current	history1	history2
>25		15.7	15.8	14.6		
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.9	8.0	8.2



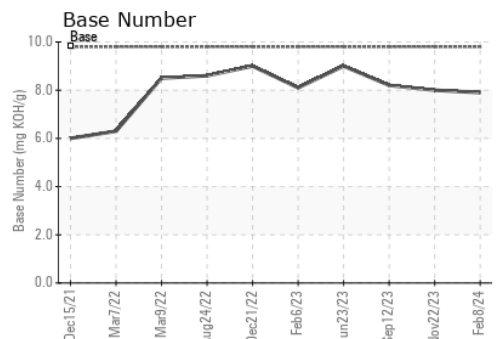
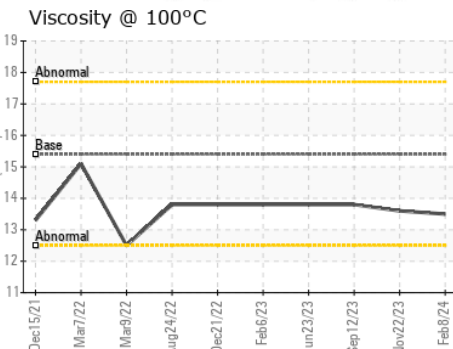
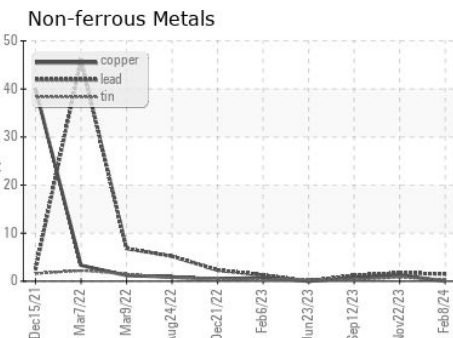
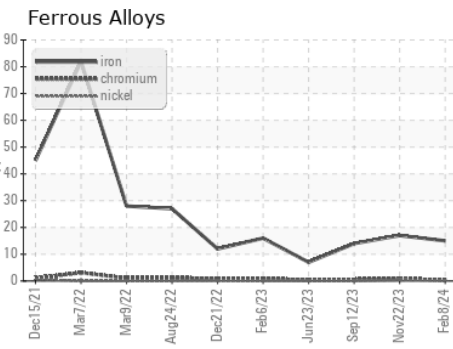
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VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
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	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.5</b>	13.6	13.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0094891 **Received** : 13 Feb 2024  
**Lab Number** : 06088045 **Tested** : 14 Feb 2024  
**Unique Number** : 10875490 **Diagnosed** : 15 Feb 2024 - Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 625 - Harrison Hauling**  
 4102 Industrial Pkwy  
 Harrison, MI  
 US 48625  
 Contact: Glenda Standen  
 gstanden@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)