



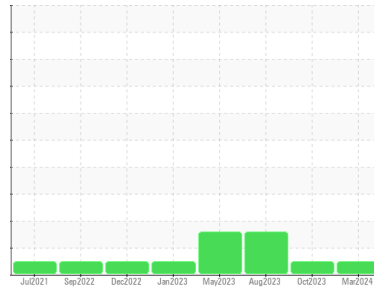
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**727025-594**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Actual hours 14506 590 hours on oil sample All 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

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0101610</b>	GFL0088307	GFL0077543
Sample Date	Client Info		<b>07 Mar 2024</b>	31 Oct 2023	16 Aug 2023
Machine Age	hrs	Client Info	<b>14506</b>	13920	14888
Oil Age	hrs	Client Info	<b>590</b>	448	593
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	<b>7</b>	6	14
Chromium	ppm	ASTM D5185m >20	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m >5	<b>2</b>	1	2
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >20	<b>3</b>	2	2
Lead	ppm	ASTM D5185m >40	<b>0</b>	2	4
Copper	ppm	ASTM D5185m >330	<b>2</b>	<1	2
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	6	<1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>61</b>	60	62
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>914</b>	913	972
Calcium	ppm	ASTM D5185m 1070	<b>1073</b>	1026	1109
Phosphorus	ppm	ASTM D5185m 1150	<b>1028</b>	950	947
Zinc	ppm	ASTM D5185m 1270	<b>1222</b>	1247	1210
Sulfur	ppm	ASTM D5185m 2060	<b>3104</b>	2880	3038

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>7</b>	11	▲ 39
Sodium	ppm	ASTM D5185m	<b>3</b>	2	5
Potassium	ppm	ASTM D5185m >20	<b>1</b>	1	2

## INFRA-RED

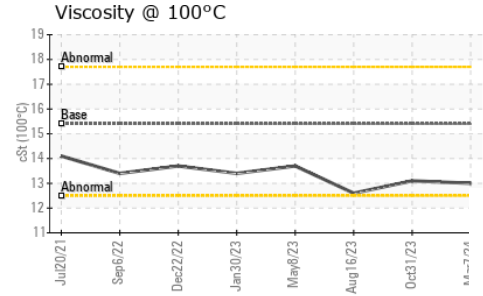
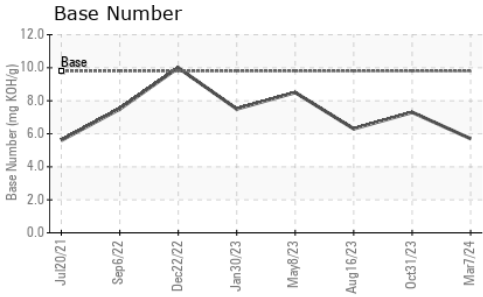
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.6</b>	0.4	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.7</b>	7.8	8.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.1</b>	19.7	20.3

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.8</b>	15.1	16.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>5.7</b>	7.3	6.3



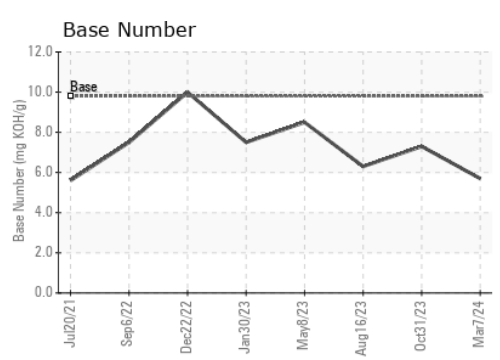
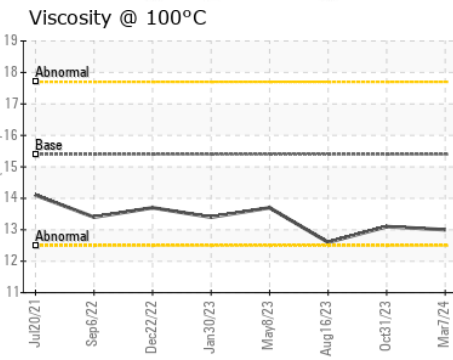
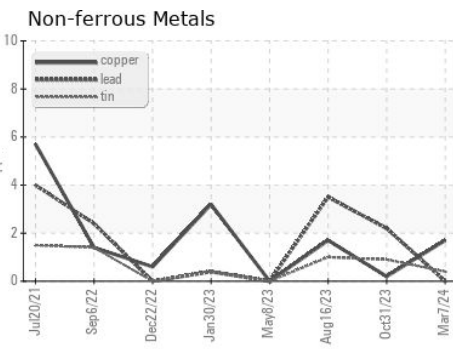
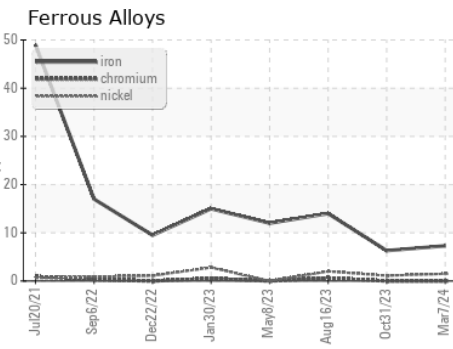
# OIL ANALYSIS REPORT



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>13.0</b>	13.1	12.6

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0101610      **Received** : 12 Mar 2024  
**Lab Number** : **06116457**      **Tested** : 14 Mar 2024  
**Unique Number** : 10925290      **Diagnosed** : 14 Mar 2024 - Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 625 - Harrison Hauling**  
 4102 Industrial Pkwy  
 Harrison, MI  
 US 48625  
 Contact: Glenda Standen  
 gstanden@gflenv.com  
 T:  
 F:

Certificate L2367  
 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)