



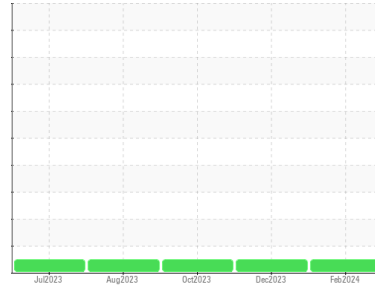
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**(BD56625) {UNASSIGNED}**  
 Machine Id  
**711049**  
 Component  
**1 Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (7 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		<b>GFL0106708</b>	GFL0097685	GFL0097703
Sample Date	Client Info		<b>22 Feb 2024</b>	20 Dec 2023	19 Oct 2023
Machine Age	hrs	Client Info	<b>5766</b>	5169	4583
Oil Age	hrs	Client Info	<b>597</b>	586	539
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## 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 >90	<b>18</b>	30	59
Chromium	ppm	ASTM D5185m >20	<b>1</b>	2	3
Nickel	ppm	ASTM D5185m >2	<b>0</b>	1	2
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	3	4
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m >330	<b>2</b>	2	6
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>3</b>	1	1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	5
Molybdenum	ppm	ASTM D5185m 60	<b>52</b>	56	58
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>859</b>	964	854
Calcium	ppm	ASTM D5185m 1070	<b>911</b>	1078	1054
Phosphorus	ppm	ASTM D5185m 1150	<b>922</b>	1051	974
Zinc	ppm	ASTM D5185m 1270	<b>1186</b>	1246	1175
Sulfur	ppm	ASTM D5185m 2060	<b>2667</b>	3087	2422

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>3</b>	4	7
Sodium	ppm	ASTM D5185m	<b>5</b>	6	11
Potassium	ppm	ASTM D5185m >20	<b>2</b>	2	7

## INFRA-RED

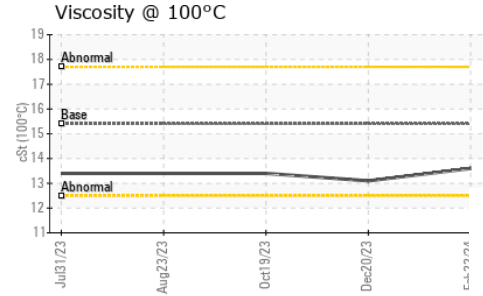
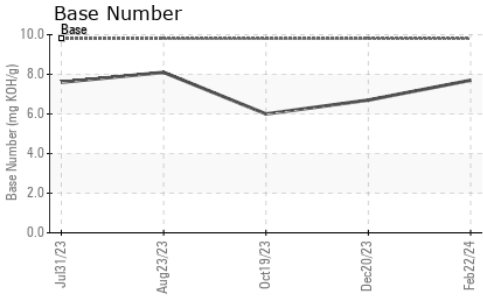
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >6	<b>0.5</b>	0.5	0.7
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.9</b>	8.9	10.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.5</b>	19.6	22.8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.6</b>	17.1	21.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.7</b>	6.7	6.0



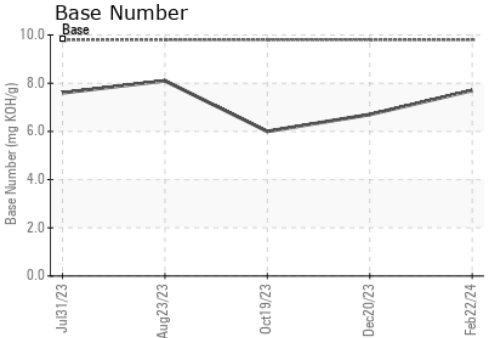
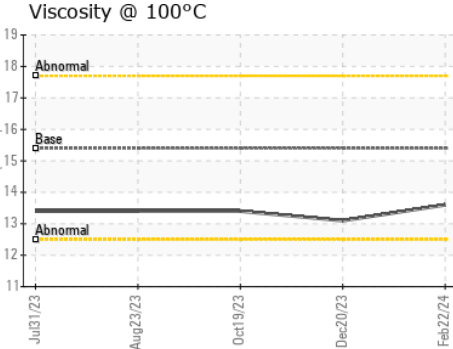
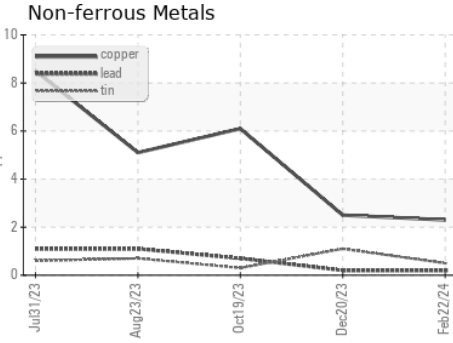
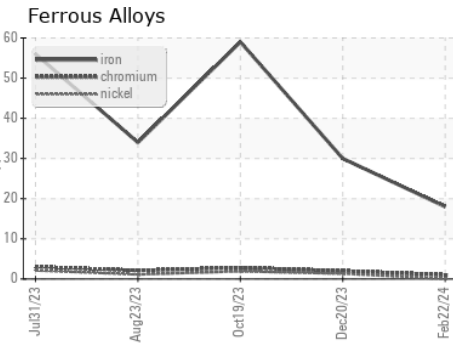
# OIL ANALYSIS REPORT



PARAMETER	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>13.6</b>	13.1	13.4

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0106708  
**Lab Number** : **06105876**  
**Unique Number** : 10909373  
**Test Package** : FLEET  
**Received** : 01 Mar 2024  
**Tested** : 02 Mar 2024  
**Diagnosed** : 02 Mar 2024 - Wes Davis

**GFL Environmental - 405 - Arbor Hills**  
 7400 Napier Rd  
 NORTHVILLE, MI  
 US 48168  
 Contact: Anthony Hopkins  
 ahopkins@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)

T:  
F: