



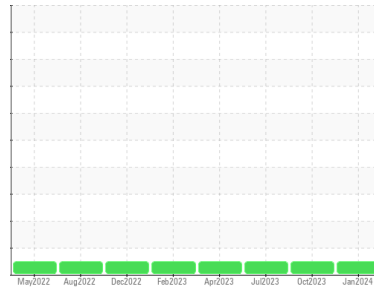
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**(BD17484)**  
Machine Id  
**910094**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Service 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>GFL0094881</b>	GFL0088293	GFL0077499
Sample Date	Client Info		<b>22 Jan 2024</b>	06 Oct 2023	13 Jul 2023
Machine Age	hrs	Client Info	<b>4316</b>	3748	3174
Oil Age	hrs	Client Info	<b>574</b>	581	608
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 >120	<b>14</b>	14	17
Chromium	ppm	ASTM D5185m >20	<b>1</b>	0	<1
Nickel	ppm	ASTM D5185m >5	<b>1</b>	0	<1
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >20	<b>3</b>	1	2
Lead	ppm	ASTM D5185m >40	<b>1</b>	<1	<1
Copper	ppm	ASTM D5185m >330	<b>4</b>	3	6
Tin	ppm	ASTM D5185m >15	<b>1</b>	0	1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>2</b>	2	<1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>59</b>	62	64
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>912</b>	925	1021
Calcium	ppm	ASTM D5185m 1070	<b>1043</b>	1045	1187
Phosphorus	ppm	ASTM D5185m 1150	<b>930</b>	881	965
Zinc	ppm	ASTM D5185m 1270	<b>1168</b>	1167	1280
Sulfur	ppm	ASTM D5185m 2060	<b>2806</b>	2411	3081

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>8</b>	7	6
Sodium	ppm	ASTM D5185m	<b>13</b>	13	5
Potassium	ppm	ASTM D5185m >20	<b>4</b>	2	<1

## INFRA-RED

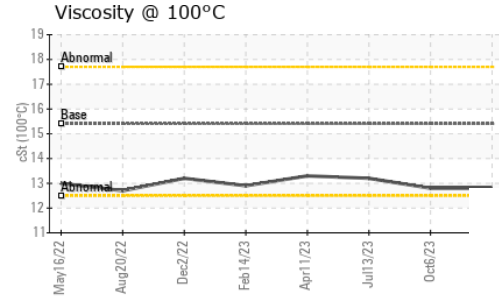
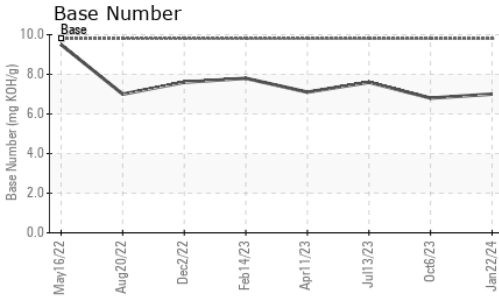
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.6</b>	0.5	0.7
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.3</b>	7.7	8.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.8</b>	19.0	21.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.5</b>	14.9	17.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.0</b>	6.8	7.6



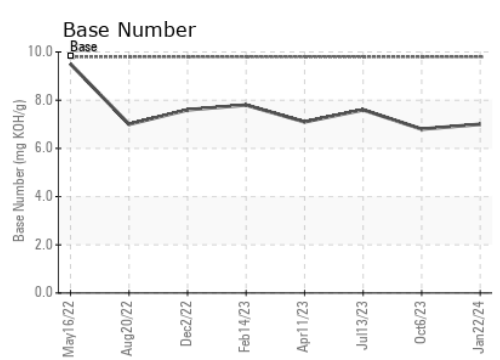
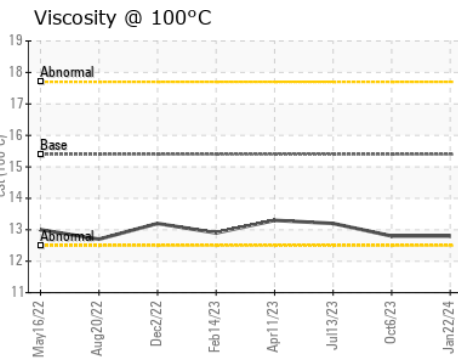
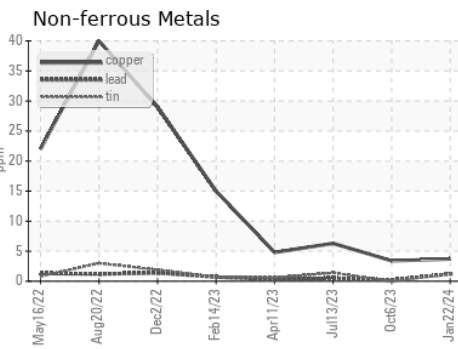
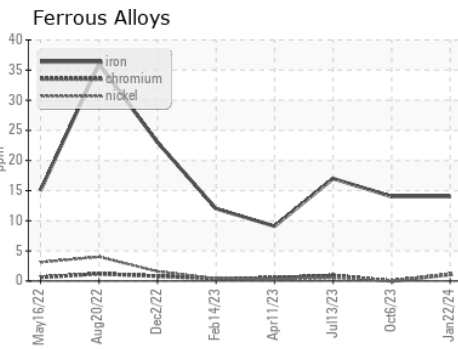
# OIL ANALYSIS REPORT



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>12.8</b>	12.8	13.2

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0094881 **Received** : 25 Jan 2024  
**Lab Number** : **06070957** **Diagnosed** : 29 Jan 2024  
**Unique Number** : 10847634 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 625 - Harrison Hauling**  
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 US 48625  
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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)