



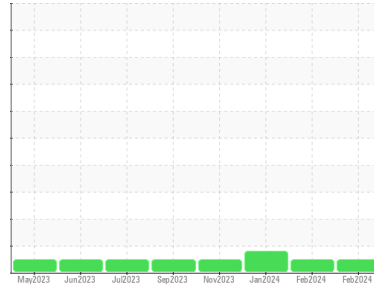
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**412008**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- 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>GFL0112718</b>	GFL0101307	GFL0101277
Sample Date	Client Info		<b>16 Feb 2024</b>	03 Feb 2024	31 Jan 2024
Machine Age	hrs	Client Info	<b>3131</b>	3003	2981
Oil Age	hrs	Client Info	<b>2981</b>	2238	2671
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	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>0</b>	1	16
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	1
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	▲ 12
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>&lt;1</b>	<1	2
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >330	<b>0</b>	<1	4
Tin	ppm	ASTM D5185m >15	<b>0</b>	<1	2
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	<1	1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	13
Molybdenum	ppm	ASTM D5185m 60	<b>56</b>	59	69
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m 1010	<b>944</b>	1007	995
Calcium	ppm	ASTM D5185m 1070	<b>1005</b>	1041	1092
Phosphorus	ppm	ASTM D5185m 1150	<b>999</b>	1079	948
Zinc	ppm	ASTM D5185m 1270	<b>1255</b>	1284	1299
Sulfur	ppm	ASTM D5185m 2060	<b>3004</b>	3313	2914

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>3</b>	2	8
Sodium	ppm	ASTM D5185m	<b>0</b>	2	0
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	4

## INFRA-RED

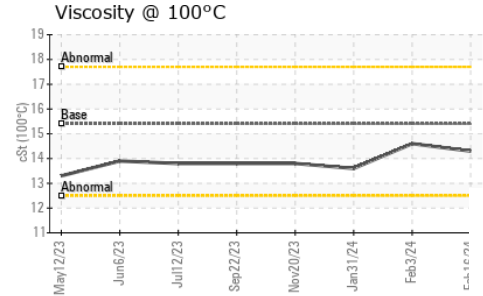
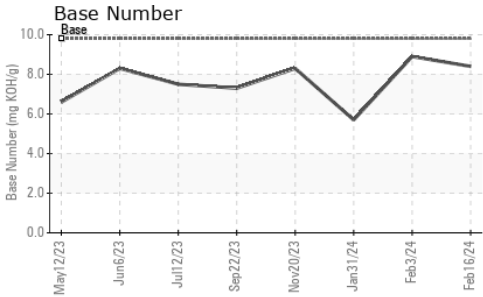
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.2</b>	0.1	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.1</b>	4.9	9.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.5</b>	18.1	21.5

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.7</b>	13.9	18.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.4</b>	8.9	5.7



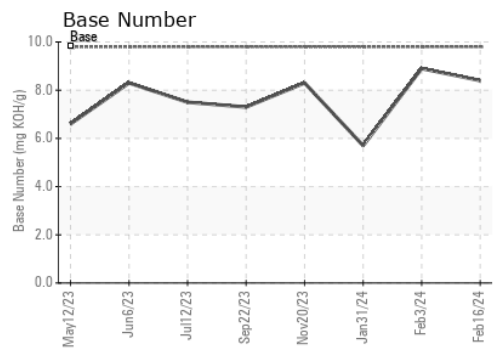
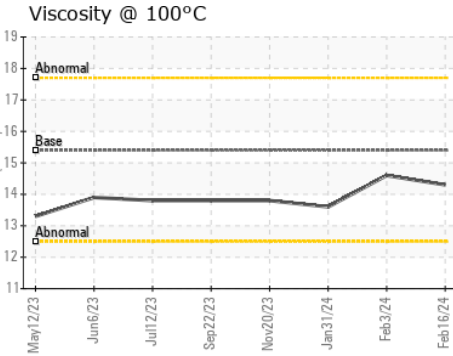
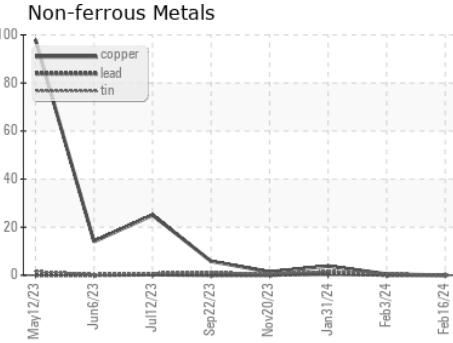
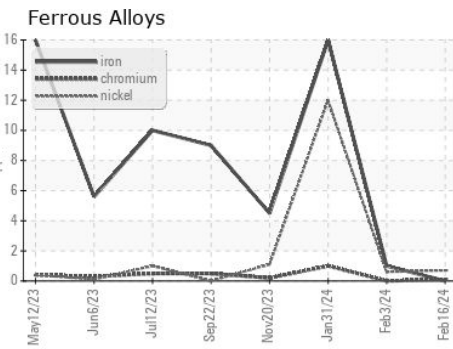
# OIL ANALYSIS REPORT



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>14.3</b>	14.6	13.6

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0112718 **Received** : 26 Feb 2024  
**Lab Number** : **06100853** **Tested** : 27 Feb 2024  
**Unique Number** : 10899083 **Diagnosed** : 27 Feb 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 654 - Richmond Hauling**  
 11800 Lewis Road  
 Chester, VA  
 US 23831  
 Contact: Jimmy Mayes  
 jmayes@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)