



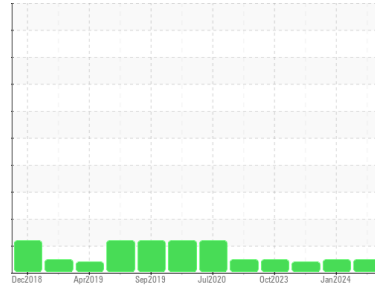
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**427081-402333**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (8 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>GFL0112217</b>	GFL0098725	GFL0098739
Sample Date	Client Info	<b>15 Mar 2024</b>	16 Jan 2024	13 Dec 2023
Machine Age	hrs	<b>9850</b>	9505	618
Oil Age	hrs	<b>600</b>	150	150
Oil Changed	Client Info	<b>Changed</b>	Not Changd	Not Changd
Sample Status		<b>NORMAL</b>	NORMAL	ATTENTION

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<b>&lt;1.0</b>	<1.0	1.3
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>11</b>	5	2
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	0	0
Nickel	ppm ASTM D5185m >5	<b>2</b>	<1	0
Titanium	ppm ASTM D5185m >2	<b>&lt;1</b>	0	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>4</b>	2	1
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	0	0
Copper	ppm ASTM D5185m >330	<b>3</b>	1	<1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	0
Vanadium	ppm ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>7</b>	7	95
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>55</b>	53	0
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>931</b>	983	707
Calcium	ppm ASTM D5185m 1070	<b>1103</b>	1027	1200
Phosphorus	ppm ASTM D5185m 1150	<b>1022</b>	1072	648
Zinc	ppm ASTM D5185m 1270	<b>1227</b>	1244	792
Sulfur	ppm ASTM D5185m 2060	<b>3366</b>	3235	2850

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>11</b>	7	6
Sodium	ppm ASTM D5185m	<b>4</b>	3	<1
Potassium	ppm ASTM D5185m >20	<b>4</b>	1	2

## INFRA-RED

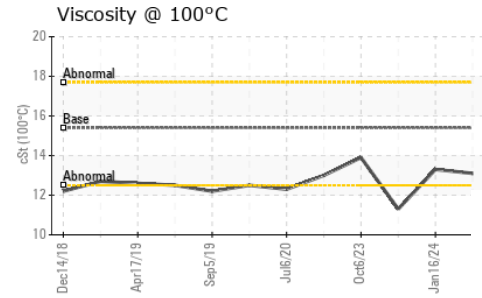
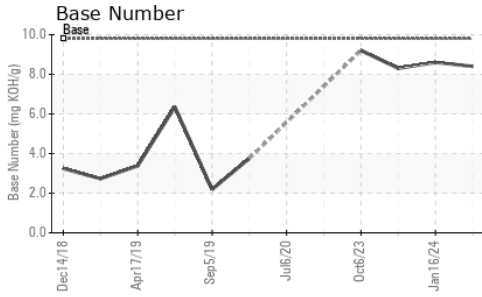
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	<b>0.3</b>	0.2	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>7.4</b>	6.2	6.5
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.2</b>	17.7	17.4

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.3</b>	14.1	11.7
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.4</b>	8.6	8.3



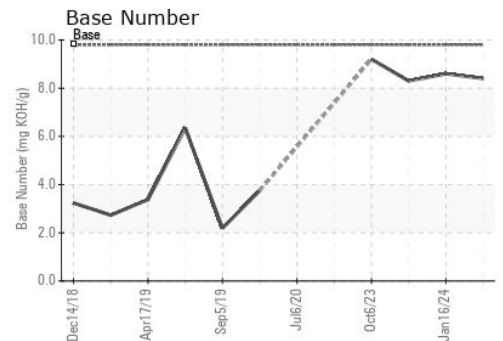
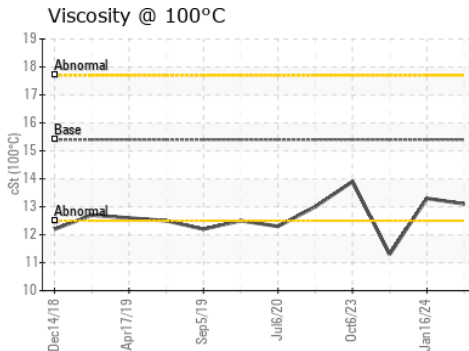
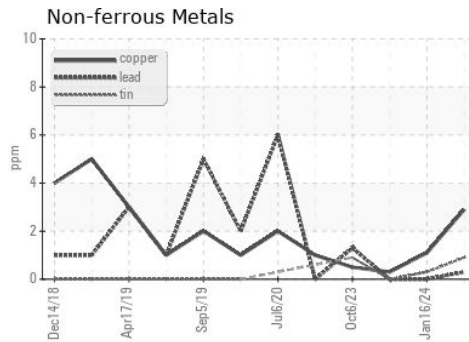
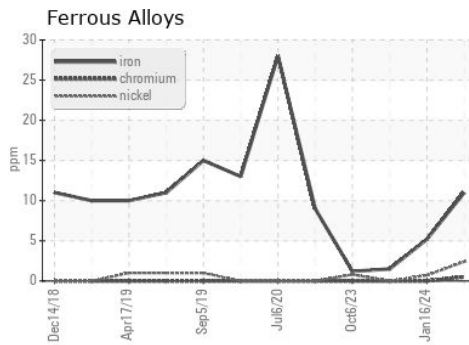
# OIL ANALYSIS REPORT



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>13.1</b>	13.3	● 11.3

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0112217  
**Lab Number** : **06122224**  
**Unique Number** : 10936375  
**Test Package** : FLEET

**Received** : 19 Mar 2024  
**Tested** : 20 Mar 2024  
**Diagnosed** : 20 Mar 2024 - Wes Davis

**GFL Environmental - 829 - Wilco Hauling**  
 5054 Highway HH  
 Hartville, MO  
 US 65667

Contact: James Jones  
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 T: (417)349-5006

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)

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