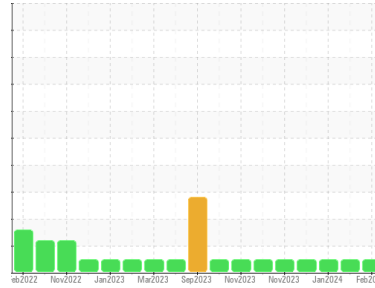




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**721031-362017**

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>GFL0098682</b>	GFL0098723	GFL0098732
Sample Date	Client Info	<b>23 Feb 2024</b>	26 Jan 2024	08 Jan 2024
Machine Age	hrs	<b>9799</b>	9549	9391
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	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<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 >100	<b>12</b>	7	4
Chromium	ppm ASTM D5185m >20	<b>1</b>	<1	<1
Nickel	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>4</b>	3	2
Lead	ppm ASTM D5185m >40	<b>0</b>	<1	0
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	<1	<1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	<1
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>2</b>	3	<1
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>60</b>	57	54
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>998</b>	918	881
Calcium	ppm ASTM D5185m 1070	<b>1047</b>	982	952
Phosphorus	ppm ASTM D5185m 1150	<b>1050</b>	1052	1001
Zinc	ppm ASTM D5185m 1270	<b>1316</b>	1251	1132
Sulfur	ppm ASTM D5185m 2060	<b>3421</b>	3076	3165

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>3</b>	2	2
Sodium	ppm ASTM D5185m	<b>12</b>	8	3
Potassium	ppm ASTM D5185m >20	<b>1</b>	3	2

## INFRA-RED

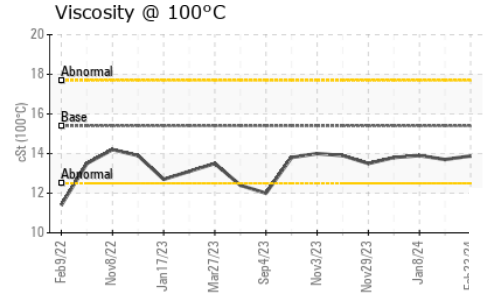
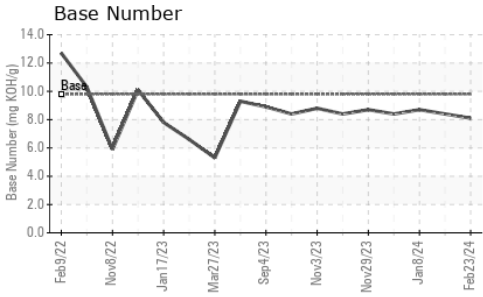
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.4</b>	0.2	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>7.1</b>	6.2	5.5
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.2</b>	18.5	18.3

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>15.1</b>	14.3	14.0
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.1</b>	8.4	8.7



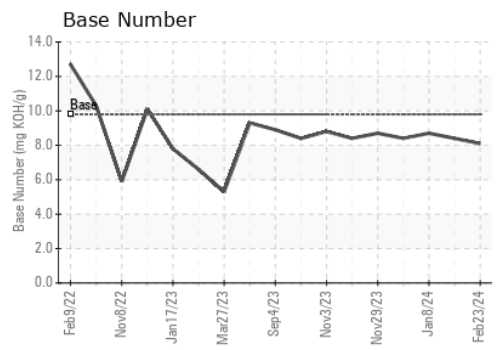
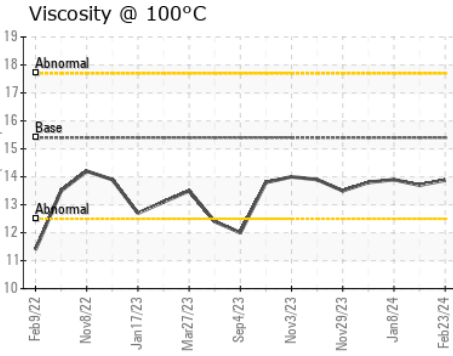
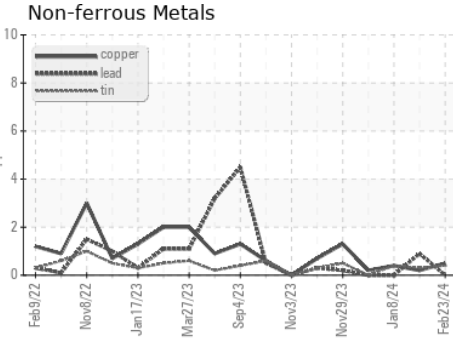
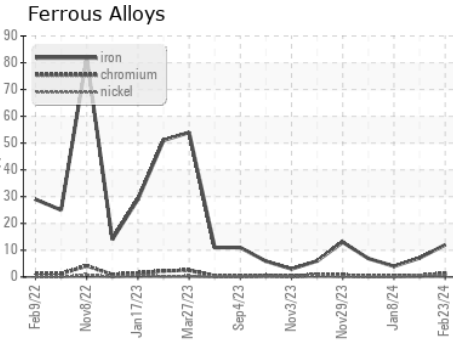
# OIL ANALYSIS REPORT



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>13.88</b>	13.7	13.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0098682 **Received** : 29 Feb 2024  
**Lab Number** : **06104064** **Tested** : 06 Mar 2024  
**Unique Number** : 10902294 **Diagnosed** : 06 Mar 2024 - Jonathan Hester  
**Test Package** : FLEET

**GFL Environmental - 829 - Wilco Hauling**  
 5054 Highway HH  
 Hartville, MO  
 US 65667  
 Contact: James Jones  
 james.jones@gflenv.com  
 T: (417)349-5006  
 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)