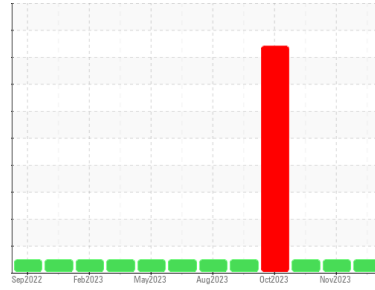




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**727100-361676**

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>GFL0088139</b>	GFL0088219	GFL0088103
Sample Date	Client Info	<b>08 Jan 2024</b>	24 Nov 2023	17 Nov 2023
Machine Age	mls	<b>153538</b>	149744	6086
Oil Age	mls	<b>0</b>	0	0
Oil Changed	Client Info	<b>Not Changed</b>	Not Changed	N/A
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>10</b>	4	20
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	0	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	<1
Titanium	ppm ASTM D5185m	<b>0</b>	0	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>1</b>	<1	3
Lead	ppm ASTM D5185m >40	<b>0</b>	0	9
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	0	3
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	0	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>0</b>	0	7
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>56</b>	59	75
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm ASTM D5185m 1010	<b>944</b>	1031	1075
Calcium	ppm ASTM D5185m 1070	<b>1004</b>	1127	1345
Phosphorus	ppm ASTM D5185m 1150	<b>993</b>	1177	1305
Zinc	ppm ASTM D5185m 1270	<b>1241</b>	1464	1503
Sulfur	ppm ASTM D5185m 2060	<b>2943</b>	3546	4329

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>6</b>	4	20
Sodium	ppm ASTM D5185m	<b>5</b>	2	7
Potassium	ppm ASTM D5185m >20	<b>0</b>	0	4

## INFRA-RED

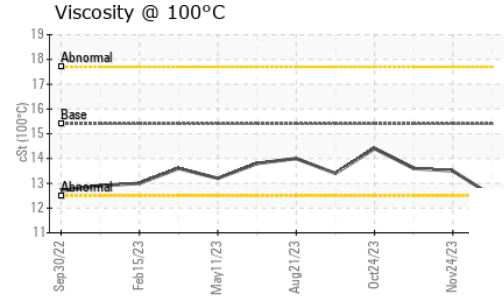
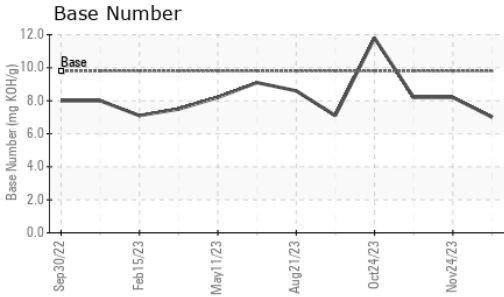
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.4</b>	0.2	0.2
Nitration	Abs/cm *ASTM D7624 >20	<b>8.7</b>	6.3	6.0
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>20.5</b>	18.5	18.2

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>18.4</b>	14.4	14.3
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.0</b>	8.2	8.2



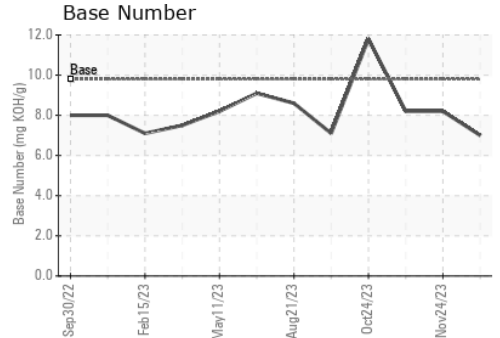
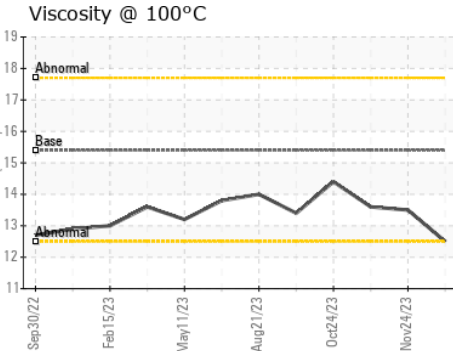
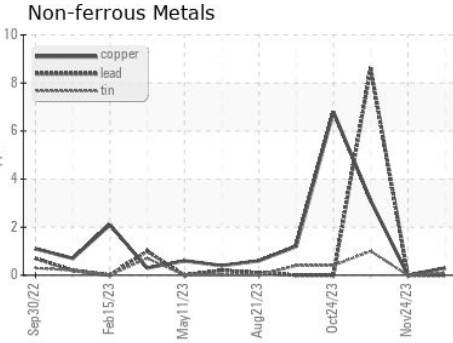
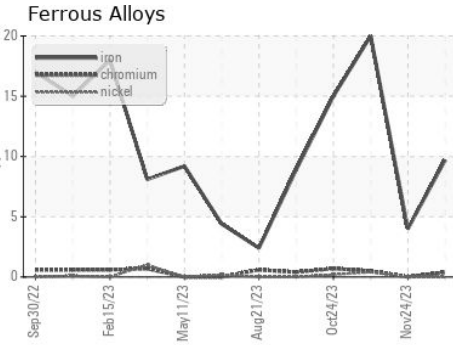
# OIL ANALYSIS REPORT



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>12.5</b>	13.5	13.6

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0088139 **Received** : 26 Jan 2024  
**Lab Number** : **06072098** **Diagnosed** : 29 Jan 2024  
**Unique Number** : 10848775 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 820 - Joplin Hauling**  
 3700 West 7th Street  
 Joplin, MO  
 US 64801  
 Contact: James Jarrett  
 jjarrett@gflenv.com  
 T: (417)310-2802  
 F:

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)