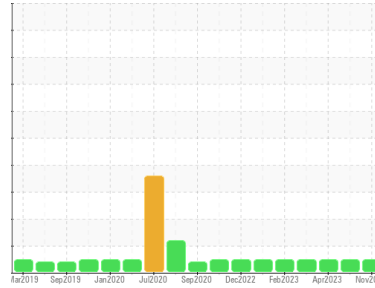




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**726042**

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>GFL0084657</b>	GFL0084692	GFL0078156
Sample Date	Client Info	<b>02 Nov 2023</b>	08 Jun 2023	27 Apr 2023
Machine Age	hrs	Client Info	0	201387
Oil Age	hrs	Client Info	<b>0</b>	0
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
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >110	<b>5</b>	15	4
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>2</b>	2	<1
Lead	ppm	ASTM D5185m >45	<b>1</b>	<1	0
Copper	ppm	ASTM D5185m >85	<b>&lt;1</b>	2	0
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	<b>5</b>	2	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>64</b>	60	62
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>1061</b>	1011	1034
Calcium	ppm	ASTM D5185m 1070	<b>1155</b>	1126	1150
Phosphorus	ppm	ASTM D5185m 1150	<b>1177</b>	1079	1083
Zinc	ppm	ASTM D5185m 1270	<b>1453</b>	1359	1329
Sulfur	ppm	ASTM D5185m 2060	<b>3603</b>	3872	3645

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >30	<b>4</b>	5	3
Sodium	ppm	ASTM D5185m	<b>4</b>	7	2
Potassium	ppm	ASTM D5185m >20	<b>1</b>	8	0

## INFRA-RED

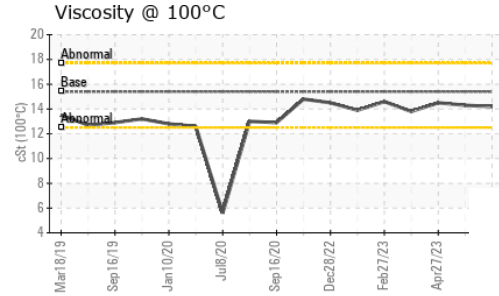
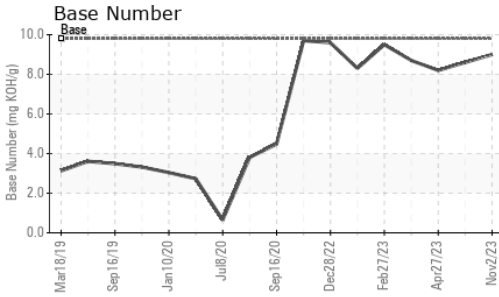
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.9	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>5.9</b>	8.8	5.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.7</b>	21.7	16.7

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.8</b>	17.6	13.0
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>9.0</b>	8.6	8.2



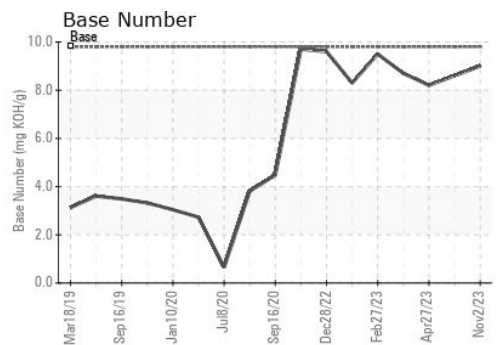
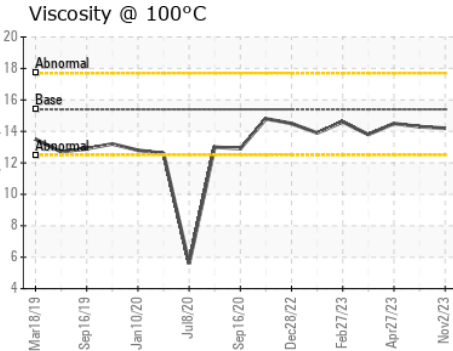
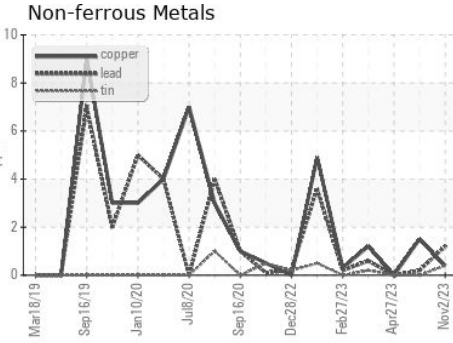
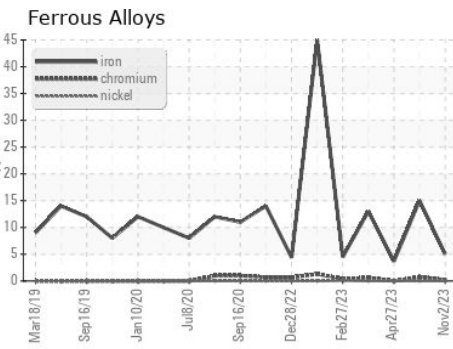
# OIL ANALYSIS REPORT



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>14.2</b>	14.3	14.5

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0084657  
**Lab Number** : 05999637  
**Unique Number** : 10727997  
**Test Package** : FLEET

**GFL Environmental - 856 - Houston South**  
 8515 Highway 6 South  
 Houston, TX  
 US 77083  
 Contact: Apolinar Zacarias  
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 T:  
 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)