



# OIL ANALYSIS REPORT

Sample Rating Trend

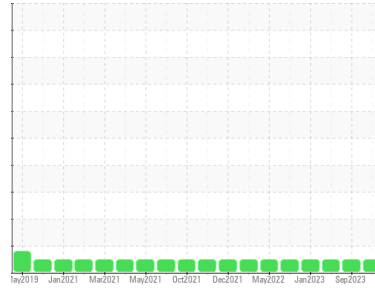
**NORMAL**



Machine Id  
**2846**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (10 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>GFL0087753</b>	GFL0087748	GFL0073820
Sample Date	Client Info	<b>19 Sep 2023</b>	14 Sep 2023	03 Apr 2023
Machine Age	hrs	<b>10449</b>	10379	9198
Oil Age	hrs	<b>70</b>	1181	554
Oil Changed	Client Info	<b>Not Chngd</b>	Changed	Changed
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 >100	<b>3</b>	25	12
Chromium	ppm ASTM D5185m >20	<b>0</b>	1	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm ASTM D5185m	<b>0</b>	<1	0
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>&lt;1</b>	1	1
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	2	<1
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	3	2
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	2	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>0</b>	2	10
Barium	ppm ASTM D5185m 0	<b>0</b>	44	0
Molybdenum	ppm ASTM D5185m 60	<b>58</b>	58	65
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	1	<1
Magnesium	ppm ASTM D5185m 1010	<b>999</b>	827	849
Calcium	ppm ASTM D5185m 1070	<b>1153</b>	1043	1312
Phosphorus	ppm ASTM D5185m 1150	<b>1042</b>	877	1050
Zinc	ppm ASTM D5185m 1270	<b>1296</b>	1148	1300
Sulfur	ppm ASTM D5185m 2060	<b>3703</b>	2774	3796

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>3</b>	4	3
Sodium	ppm ASTM D5185m	<b>1</b>	5	3
Potassium	ppm ASTM D5185m >20	<b>3</b>	4	2

## INFRA-RED

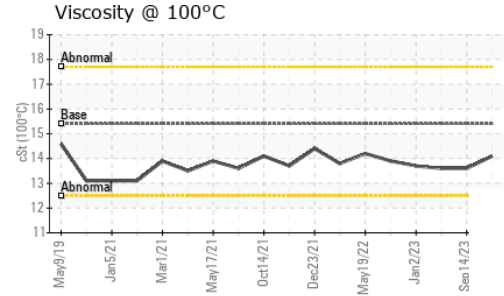
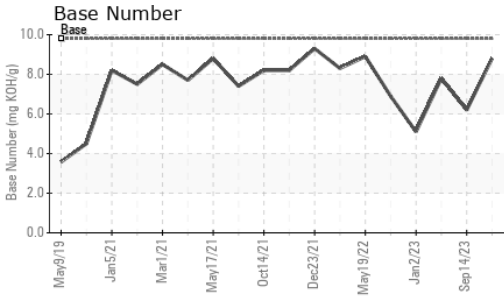
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.2</b>	0.9	0.4
Nitration	Abs/cm *ASTM D7624 >20	<b>5.0</b>	9.5	8.8
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>17.7</b>	21.4	19.3

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.3</b>	16.6	14.3
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.8</b>	6.2	7.8



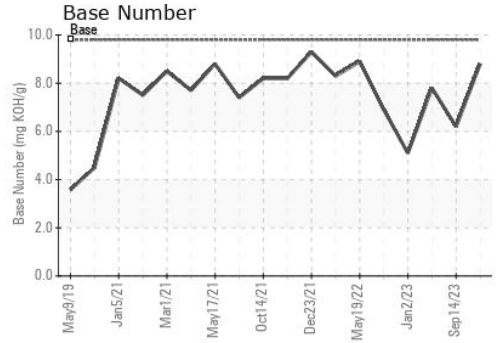
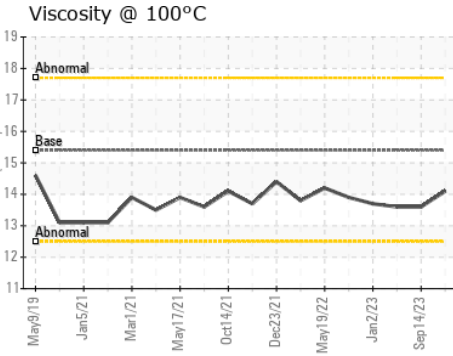
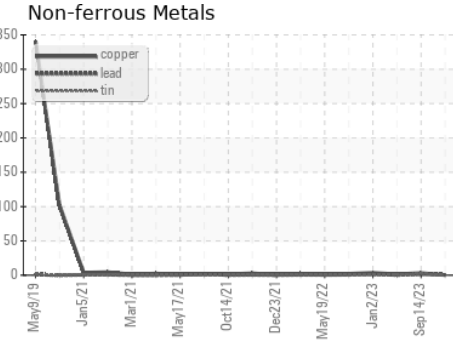
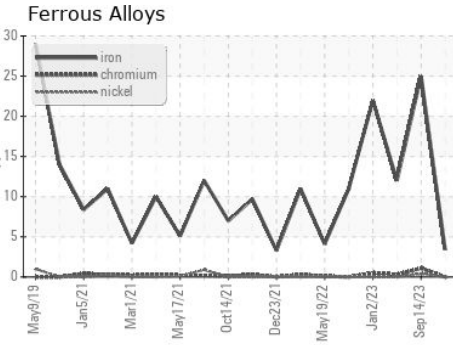
# OIL ANALYSIS REPORT



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>14.1</b>	13.6	13.6

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0087753 **Received** : 21 Sep 2023  
**Lab Number** : **05957428** **Diagnosed** : 22 Sep 2023  
**Unique Number** : 10658641 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 006 - Wilmington**  
 3618 US Highway 421 N  
 Wilmington, NC  
 US 28401  
 Contact: Eric Wood  
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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)