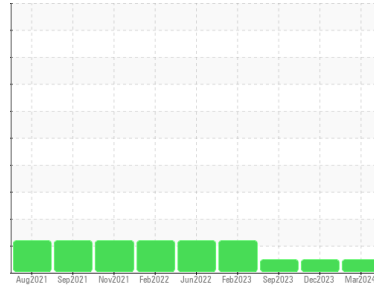




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**729036-361501**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- LTR)**

## 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>GFL0115488</b>	GFL0094232	GFL0089732
Sample Date	Client Info	<b>22 Mar 2024</b>	08 Dec 2023	07 Sep 2023
Machine Age	hrs	<b>27189</b>	26680	26308
Oil Age	hrs	<b>509</b>	372	1076
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >2.0	<b>&lt;1.0</b>	<1.0	0.5
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>21</b>	6	4
Chromium	ppm ASTM D5185m >20	<b>0</b>	<1	<1
Nickel	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	<1
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>2</b>	2	2
Lead	ppm ASTM D5185m >40	<b>2</b>	<1	<1
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>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>4</b>	32	26
Barium	ppm ASTM D5185m 0	<b>0</b>	11	0
Molybdenum	ppm ASTM D5185m 60	<b>59</b>	63	49
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	1
Magnesium	ppm ASTM D5185m 1010	<b>885</b>	696	621
Calcium	ppm ASTM D5185m 1070	<b>1069</b>	1835	1590
Phosphorus	ppm ASTM D5185m 1150	<b>1056</b>	948	803
Zinc	ppm ASTM D5185m 1270	<b>1251</b>	1161	1031
Sulfur	ppm ASTM D5185m 2060	<b>3430</b>	3356	3192

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>3</b>	4	3
Sodium	ppm ASTM D5185m	<b>18</b>	7	4
Potassium	ppm ASTM D5185m >20	<b>10</b>	3	3

## INFRA-RED

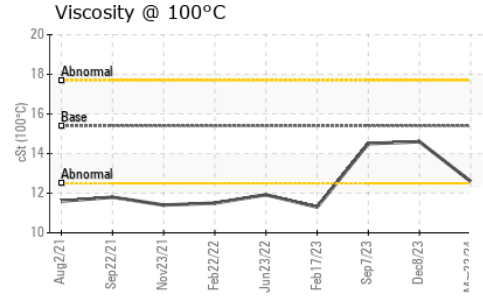
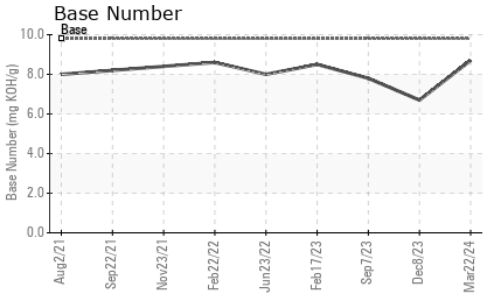
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>1.5</b>	0	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>10.4</b>	8.3	8.1
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>20.6</b>	18.4	18.2

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>16.6</b>	15.9	15.5
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.7</b>	6.7	7.8



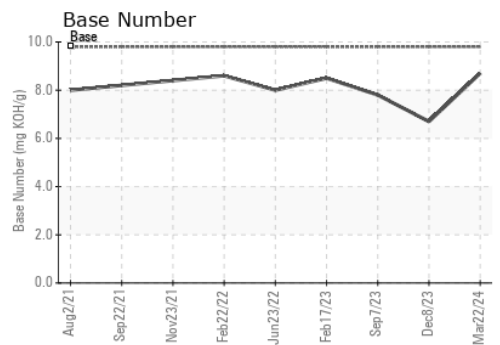
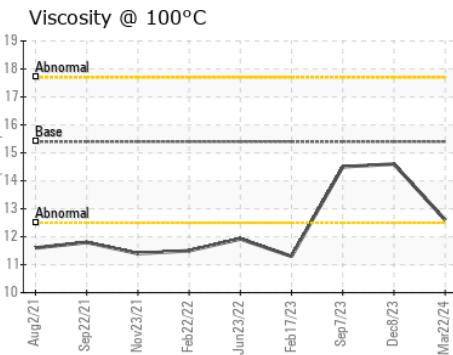
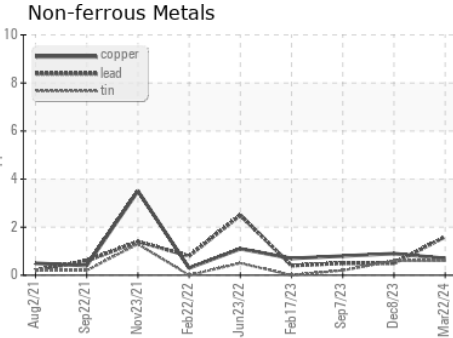
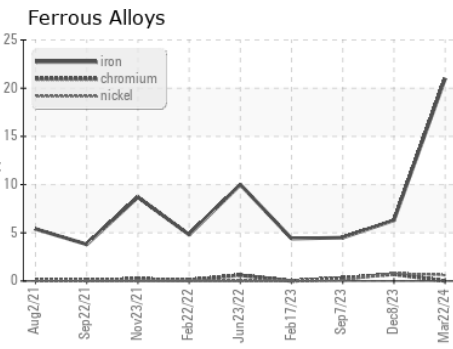
# OIL ANALYSIS REPORT



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	12.6	14.6

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0115488  
**Lab Number** : **06129107**  
**Unique Number** : 10943258  
**Test Package** : FLEET  
**Received** : 26 Mar 2024  
**Tested** : 27 Mar 2024  
**Diagnosed** : 27 Mar 2024 - Wes Davis

**GFL Environmental - 882 - Gainesville**  
 5002 SW 41st Blvd  
 Gainesville, FL  
 US 32608  
 Contact: ROBERT CLARK  
 robert.clark@gflenv.com

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)