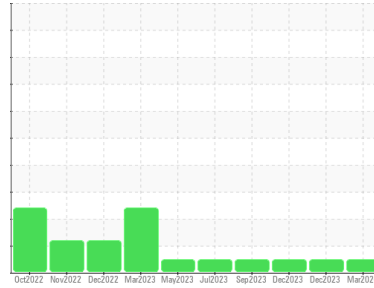




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(GAC713)**  
Machine Id  
**913034**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (11 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>GFL0103397</b>	GFL0103408	GFL0092455
Sample Date	Client Info	<b>04 Mar 2024</b>	21 Dec 2023	04 Dec 2023
Machine Age	hrs	<b>2383</b>	1818	1668
Oil Age	hrs	<b>553</b>	0	546
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 >3.0	<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 >120	<b>9</b>	3	8
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >5	<b>&lt;1</b>	<1	1
Titanium	ppm ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>2</b>	2	<1
Lead	ppm ASTM D5185m >40	<b>0</b>	0	0
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	<1	1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>8</b>	9	5
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>64</b>	63	63
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	0	0
Magnesium	ppm ASTM D5185m 1010	<b>876</b>	886	948
Calcium	ppm ASTM D5185m 1070	<b>987</b>	1045	1072
Phosphorus	ppm ASTM D5185m 1150	<b>902</b>	857	988
Zinc	ppm ASTM D5185m 1270	<b>1134</b>	1151	1221
Sulfur	ppm ASTM D5185m 2060	<b>2462</b>	2998	2802

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>3</b>	2	4
Sodium	ppm ASTM D5185m	<b>3</b>	<1	4
Potassium	ppm ASTM D5185m >20	<b>&lt;1</b>	2	0

## INFRA-RED

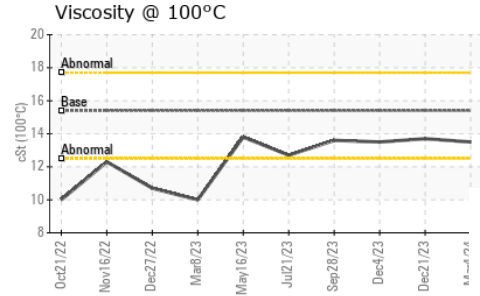
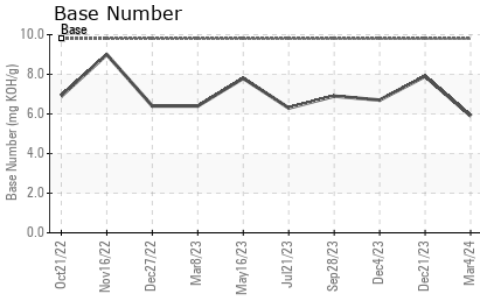
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	<b>0.5</b>	0.2	0.4
Nitration	Abs/cm *ASTM D7624 >20	<b>9.3</b>	6.1	8.7
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>20.0</b>	17.7	19.8

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>16.6</b>	13.9	15.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>5.9</b>	7.9	6.7



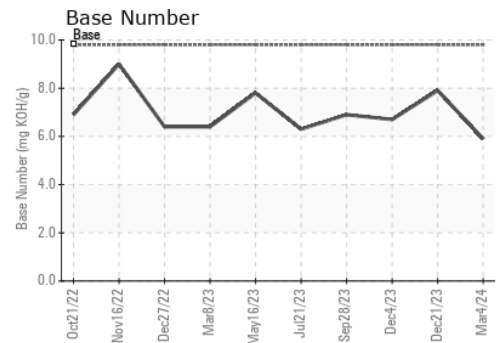
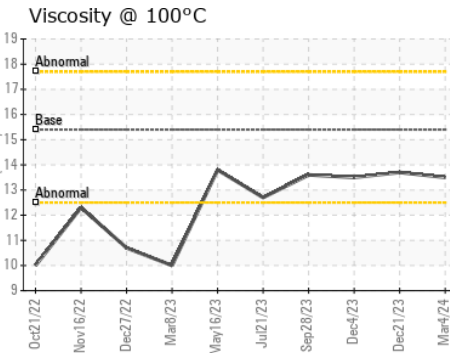
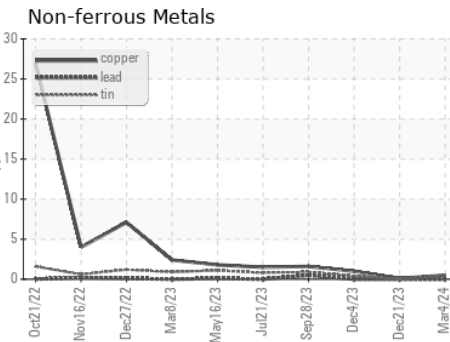
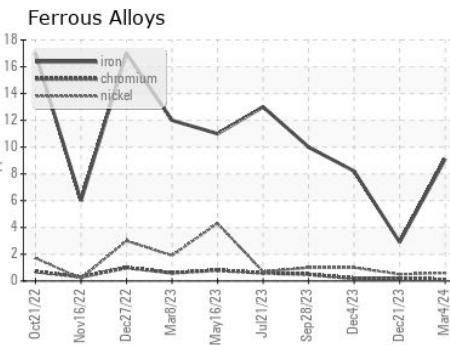
# OIL ANALYSIS REPORT



PARAMETER	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	13.5	13.7

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0103397  
 Lab Number : 06112069  
 Unique Number : 10915566  
 Test Package : FLEET

Received : 07 Mar 2024  
 Tested : 08 Mar 2024  
 Diagnosed : 08 Mar 2024 - Wes Davis

GFL Environmental - 095 - Atlanta West  
 2699 Cochran Industrial Blvd  
 Douglasville, GA  
 US 30127-1332  
 Contact: Darrell Welch  
 darrell.welch@gflenv.com  
 T: (800)207-6618  
 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)