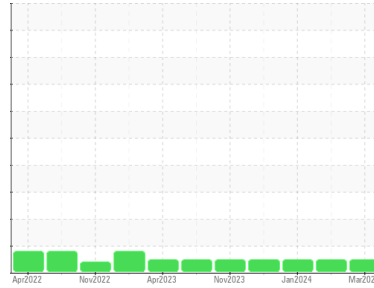




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**923036-205290**  
 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 component.

### 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>GFL0109321</b>	GFL0093570	GFL0048367
Sample Date	Client Info		<b>07 Mar 2024</b>	29 Jan 2024	02 Jan 2024
Machine Age	hrs	Client Info	<b>4825</b>	4689	4592
Oil Age	hrs	Client Info	<b>367</b>	231	134
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
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>6</b>	6	4
Chromium	ppm	ASTM D5185m >20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m >5	<b>3</b>	2	2
Titanium	ppm	ASTM D5185m >2	<b>44</b>	50	54
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	2	2
Lead	ppm	ASTM D5185m >40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m >330	<b>7</b>	8	5
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>34</b>	61	79
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>27</b>	29	21
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>669</b>	633	628
Calcium	ppm	ASTM D5185m 1070	<b>1312</b>	1380	1379
Phosphorus	ppm	ASTM D5185m 1150	<b>959</b>	893	1037
Zinc	ppm	ASTM D5185m 1270	<b>1202</b>	1158	1226
Sulfur	ppm	ASTM D5185m 2060	<b>3118</b>	3610	3598

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>5</b>	4	5
Sodium	ppm	ASTM D5185m	<b>8</b>	1	5
Potassium	ppm	ASTM D5185m >20	<b>5</b>	4	4

## INFRA-RED

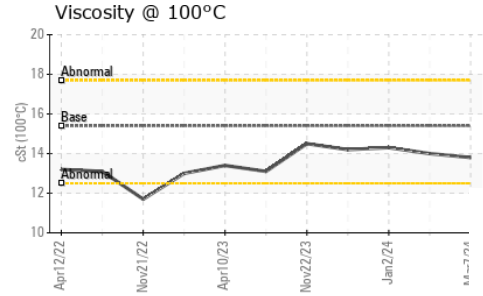
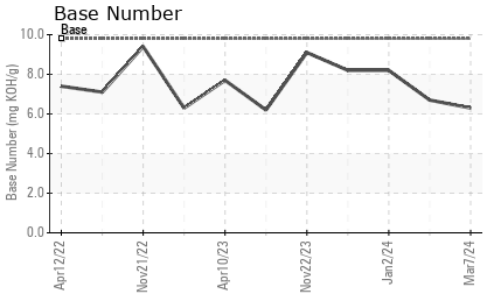
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.4</b>	7.5	6.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.3</b>	19.0	19.0

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.7</b>	15.3	14.7
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.3</b>	6.7	8.2



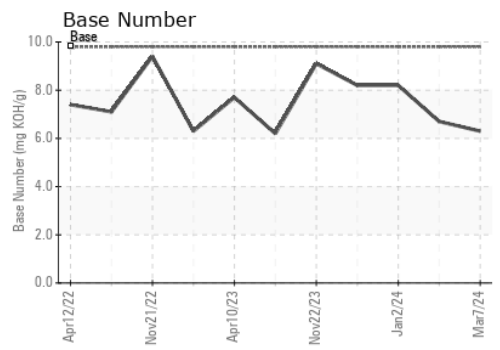
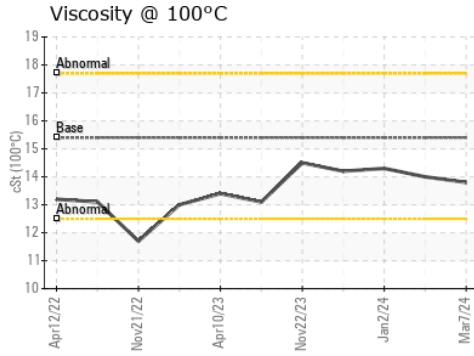
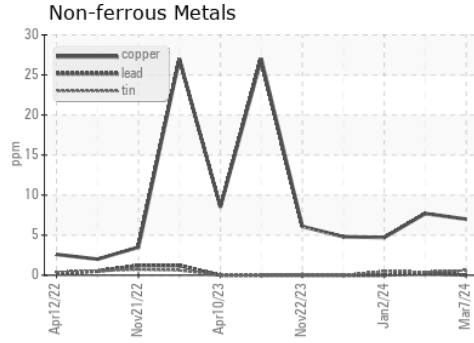
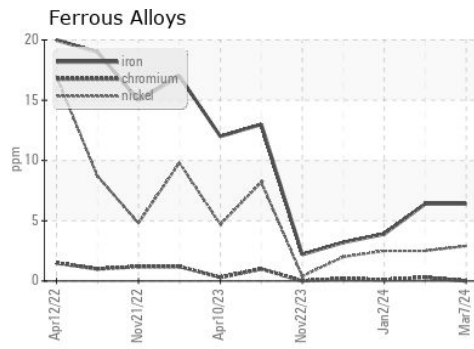
# OIL ANALYSIS REPORT



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	LIGHT
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>13.8</b>	14.0	14.3

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0109321 **Received** : 08 Mar 2024  
**Lab Number** : **06112709** **Tested** : 11 Mar 2024  
**Unique Number** : 10916206 **Diagnosed** : 11 Mar 2024 - Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 891 - Oklahoma City Hauling**  
 1001 South Rockwell  
 Oklahoma City, OK  
 US 73128  
 Contact: Andy Smith  
 andrew.smith@gflenv.com  
 T: (405)306-1651  
 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)