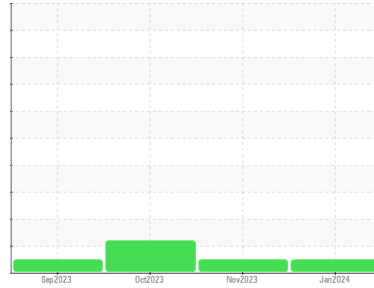




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**913009**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (36 QTS)**

## 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>GFL0104188</b>	GFL0059269	GFL0084978
Sample Date	Client Info		<b>04 Jan 2024</b>	15 Nov 2023	04 Oct 2023
Machine Age	hrs	Client Info	<b>3635</b>	2693	2742
Oil Age	hrs	Client Info	<b>3050</b>	2693	585
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	ABNORMAL

## 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>2</b>	61	85
Chromium	ppm	ASTM D5185m >20	<b>0</b>	2	3
Nickel	ppm	ASTM D5185m >5	<b>0</b>	5	1
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m >20	<b>0</b>	2	4
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	<1	6
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	13	2
Tin	ppm	ASTM D5185m >15	<b>0</b>	2	<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>&lt;1</b>	3	4
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>53</b>	64	63
Manganese	ppm	ASTM D5185m 0	<b>0</b>	1	1
Magnesium	ppm	ASTM D5185m 1010	<b>924</b>	962	979
Calcium	ppm	ASTM D5185m 1070	<b>984</b>	1107	1112
Phosphorus	ppm	ASTM D5185m 1150	<b>945</b>	1029	1101
Zinc	ppm	ASTM D5185m 1270	<b>1251</b>	1307	1344
Sulfur	ppm	ASTM D5185m 2060	<b>2910</b>	2270	2851

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>2</b>	8	10
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	5	34
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	4

## INFRA-RED

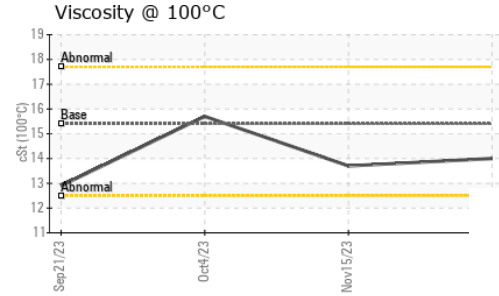
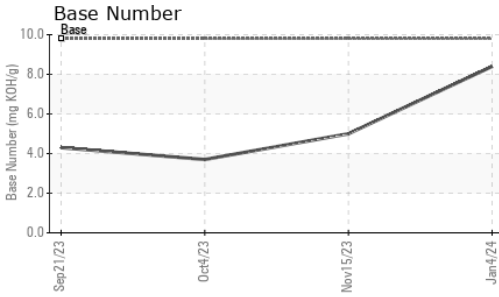
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.2</b>	1.3	1.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>5.7</b>	11.1	13.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.3</b>	23.5	25.0

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.1</b>	21.8	26.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.4</b>	5.0	▲ 3.7



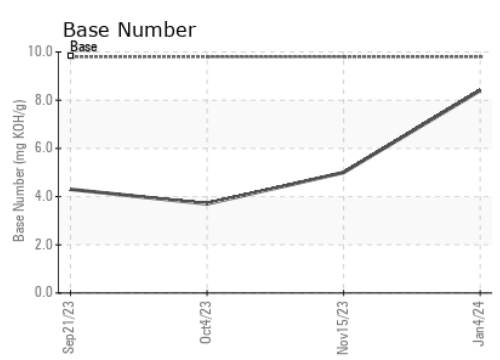
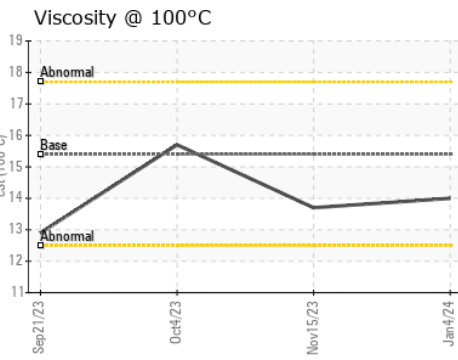
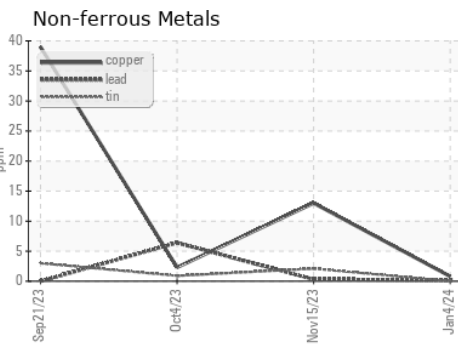
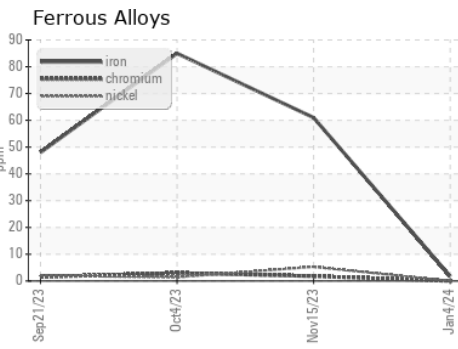
# OIL ANALYSIS REPORT



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>14.0</b>	13.7	15.7

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0104188 **Recieved** : 11 Jan 2024  
**Lab Number** : **06057781** **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10829163 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 410 - Michigan West**  
 39000 Van Born Rd  
 Wayne, MI  
 US 48184  
 Contact: Tony Esquina  
 tesquina@gflenv.com  
 T:  
 F:

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)