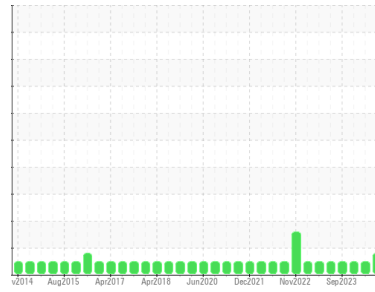




# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Area  
**(YA113932)**

Machine Id  
**2433**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (8 GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

Cylinder, crank, or cam shaft wear is indicated. All other 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>GFL0115917</b>	GFL0099830	GFL0089981
Sample Date	Client Info		<b>10 Jul 2024</b>	10 Feb 2024	23 Jan 2024
Machine Age	hrs	Client Info	<b>512899</b>	18690	512899
Oil Age	hrs	Client Info	<b>0</b>	600	512899
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<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 >75	<b>▲ 75</b>	26	22
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >54	<b>2</b>	1	<1
Lead	ppm	ASTM D5185m >20	<b>1</b>	<1	1
Copper	ppm	ASTM D5185m >240	<b>8</b>	2	3
Tin	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>6</b>	4	3
Barium	ppm	ASTM D5185m 0	<b>0</b>	8	0
Molybdenum	ppm	ASTM D5185m 60	<b>57</b>	66	59
Manganese	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>954</b>	939	987
Calcium	ppm	ASTM D5185m 1070	<b>1138</b>	1048	1104
Phosphorus	ppm	ASTM D5185m 1150	<b>1121</b>	873	1086
Zinc	ppm	ASTM D5185m 1270	<b>1359</b>	1219	1290
Sulfur	ppm	ASTM D5185m 2060	<b>3588</b>	2823	3261

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >35	<b>7</b>	10	4
Sodium	ppm	ASTM D5185m	<b>3</b>	<1	2
Potassium	ppm	ASTM D5185m >20	<b>10</b>	2	2

## INFRA-RED

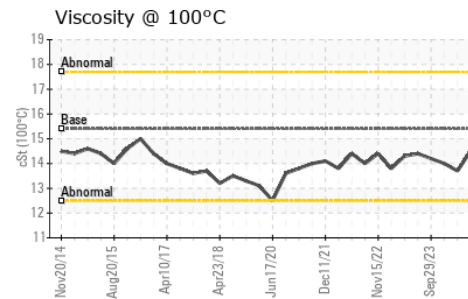
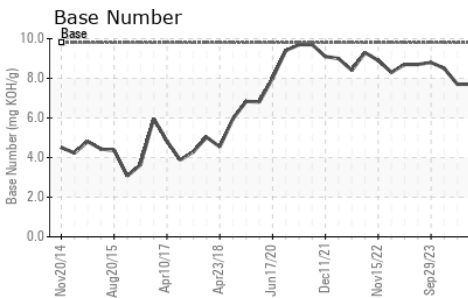
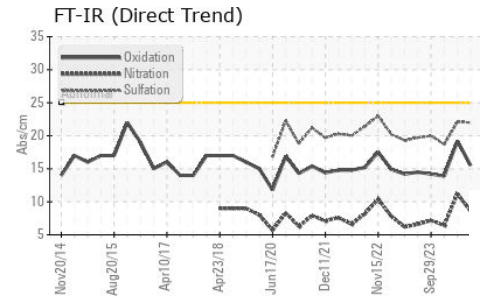
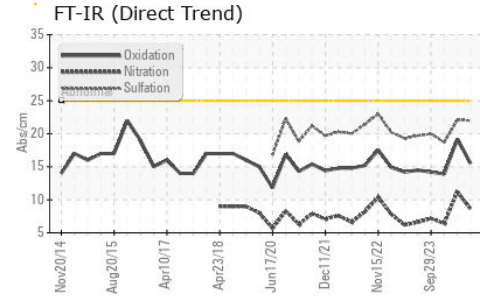
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>1.6</b>	1	0.6
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.6</b>	11.2	6.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>22.0</b>	22.1	18.7

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.5</b>	19.2	13.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.7</b>	7.7	8.5



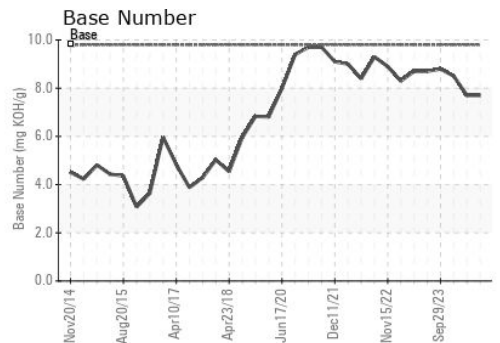
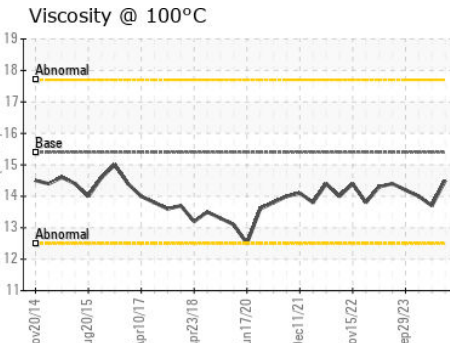
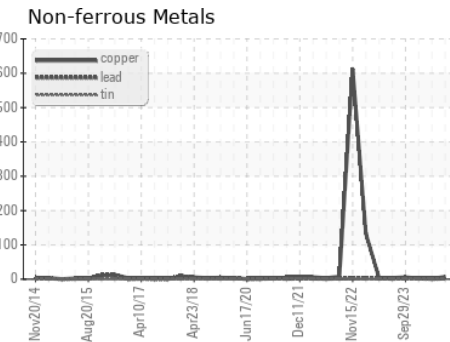
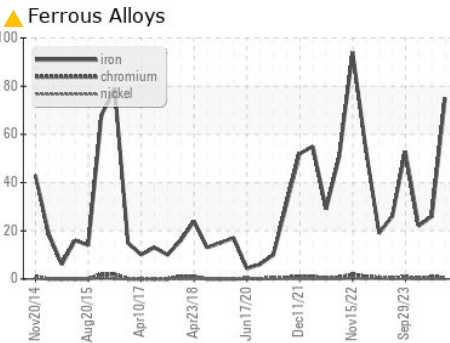
# OIL ANALYSIS REPORT



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	14.5	13.7

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0115917  
 Lab Number : 06232916  
 Unique Number : 11116409  
 Test Package : FLEET

Received : 11 Jul 2024  
 Tested : 11 Jul 2024  
 Diagnosed : 13 Jul 2024 - Don Baldrige

GFL Environmental - 018 - Fayetteville  
 4621 Marracco Drive  
 Hope Mills, NC  
 US 28348  
 Contact: Robert Carter  
 robert.carter@gflenv.com  
 T: (910)596-1170  
 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)