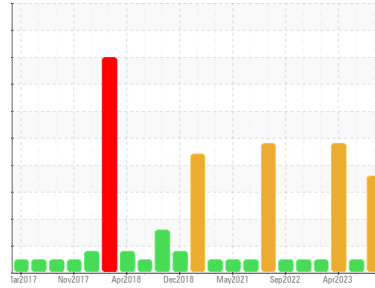




# OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id  
**9105**

Component  
**Front Diesel Engine**

Fluid  
**PETRO CANADA DURON HP 15W40 (27 LTR)**

## DIAGNOSIS

### Recommendation

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

Test for glycol is positive. There is a light concentration of glycol present 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. The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	<b>GFL0112427</b>	GFL0099592	GFL0077579	
Sample Date	Client Info	<b>19 Feb 2024</b>	30 Nov 2023	25 Apr 2023	
Machine Age	hrs	Client Info	<b>24533</b>	573073	541984
Oil Age	hrs	Client Info	<b>317</b>	0	541984
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed	
Sample Status		<b>ATTENTION</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

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >75	<b>31</b>	48	27
Chromium	ppm ASTM D5185(m) >5	<b>2</b>	3	1
Nickel	ppm ASTM D5185(m) >4	<b>&lt;1</b>	<1	<1
Titanium	ppm ASTM D5185(m) >2	<b>0</b>	0	<1
Silver	ppm ASTM D5185(m) >2	<b>0</b>	<1	0
Aluminum	ppm ASTM D5185(m) >15	<b>7</b>	5	10
Lead	ppm ASTM D5185(m) >25	<b>&lt;1</b>	2	<1
Copper	ppm ASTM D5185(m) >100	<b>1</b>	2	1
Tin	ppm ASTM D5185(m) >4	<b>0</b>	0	0
Antimony	ppm ASTM D5185(m)	<b>0</b>	0	<1
Vanadium	ppm ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 0	<b>2</b>	2	2
Barium	ppm ASTM D5185(m) 0	<b>0</b>	<1	0
Molybdenum	ppm ASTM D5185(m) 60	<b>59</b>	61	71
Manganese	ppm ASTM D5185(m) 0	<b>0</b>	0	<1
Magnesium	ppm ASTM D5185(m) 1010	<b>911</b>	931	931
Calcium	ppm ASTM D5185(m) 1070	<b>1037</b>	1030	1073
Phosphorus	ppm ASTM D5185(m) 1150	<b>970</b>	918	1064
Zinc	ppm ASTM D5185(m) 1270	<b>1143</b>	1164	1164
Sulfur	ppm ASTM D5185(m) 2060	<b>2579</b>	2360	2527
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	<b>5</b>	7	6
Sodium	ppm ASTM D5185(m)	<b>100</b>	92	375
Potassium	ppm ASTM D5185(m) >20	<b>4</b>	4	10
Glycol	% ASTM D7922*	<b>0.031</b>	0.0	0.016

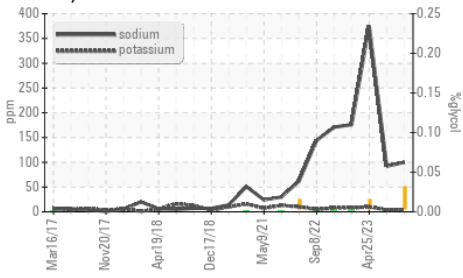
## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >6	<b>0.9</b>	1.3	0.6
Nitration	Abs/cm ASTM D7624* >20	<b>9.6</b>	12.1	9.6
Sulfation	Abs.1mm ASTM D7415* >30	<b>21.3</b>	24.8	20.9



# OIL ANALYSIS REPORT

### Glycol Contamination



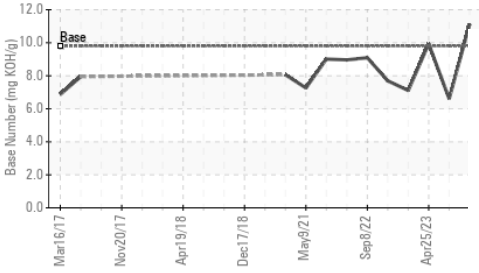
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>16.6</b>	21.9	16.0
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	<b>11.12</b>	6.61	9.93

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

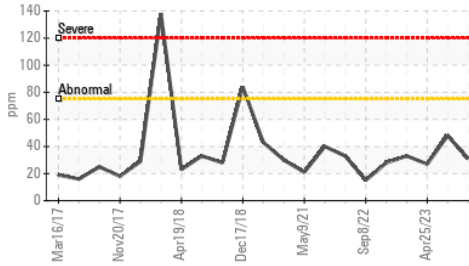
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	<b>14.2</b>	14.1	14.2

### GRAPHS

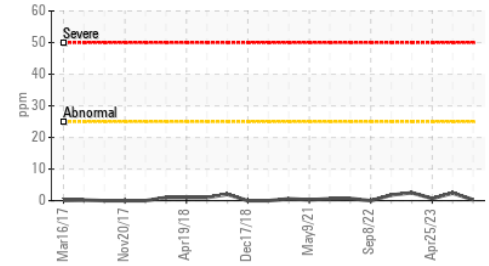
#### Base Number



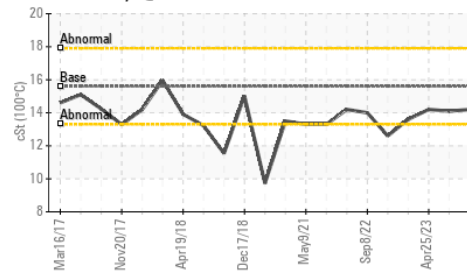
#### Iron (ppm)



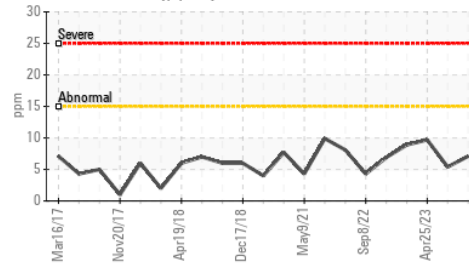
#### Lead (ppm)



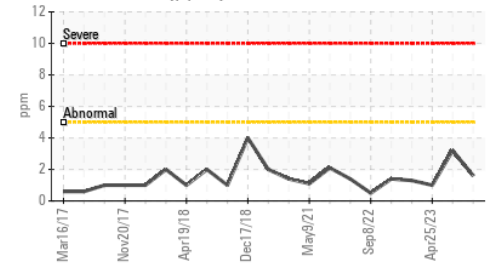
#### Viscosity @ 100°C



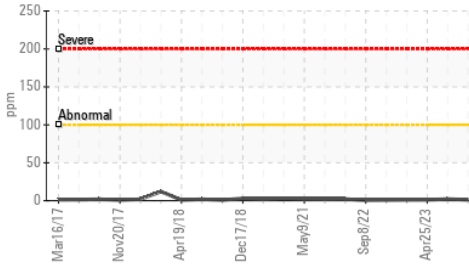
#### Aluminum (ppm)



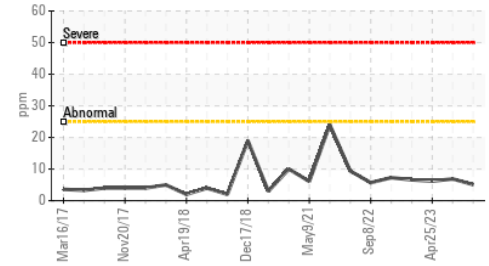
#### Chromium (ppm)



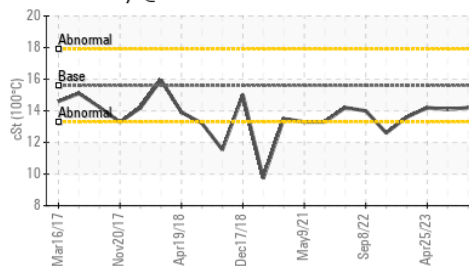
#### Copper (ppm)



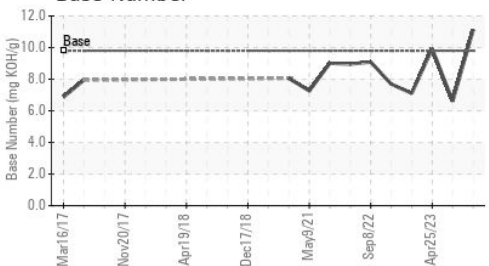
#### Silicon (ppm)



#### Viscosity @ 100°C



#### Base Number



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0112427  
**Lab Number** : 02618609  
**Unique Number** : 5735719  
**Test Package** : MOB 2 ( Additional Tests: Glycol )  
**Received** : 28 Feb 2024  
**Tested** : 29 Feb 2024  
**Diagnosed** : 29 Feb 2024 - Wes Davis

**GFL Environmental - 550 - Rocky View County**  
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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.