



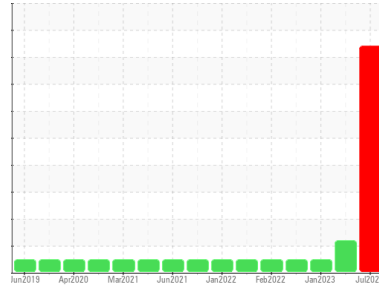
# PROBLEM SUMMARY

Sample Rating Trend

GLYCOL

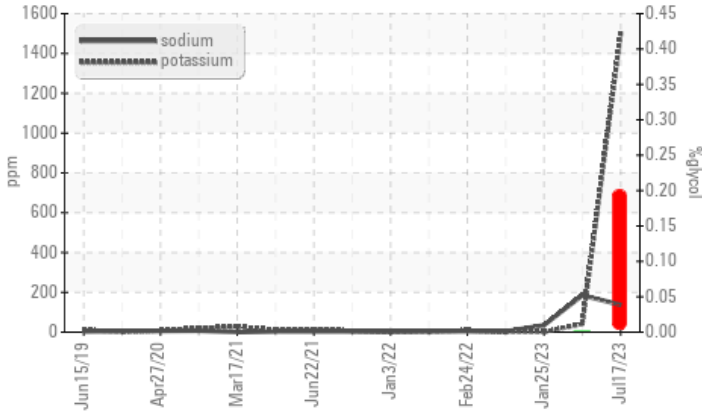


Machine Id  
**2840**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**



## COMPONENT CONDITION SUMMARY

### Glycol Contamination



## 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. Please specify the component make and model with your next sample.

## PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ATTENTION	NORMAL
Sodium	ppm	ASTM D5185m		▲ 137	▲ 185	35
Potassium	ppm	ASTM D5185m	>20	▲ 1501	41	1
Glycol	%	*ASTM D2982		● 0.20	0.0	NEG

Customer Id: GFL007  
Sample No.: GFL0082467  
Lab Number: 05901065  
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Wes Davis +1 905-569-8600 x223  
[wesd@wearcheck.ca](mailto:wesd@wearcheck.ca)

To change component or sample information:  
Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	Please specify the component make and model with your next sample.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

## HISTORICAL DIAGNOSIS

**28 Mar 2023 Diag: Doug Bogart**

GLYCOL



Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is negative. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



**25 Jan 2023 Diag: Wes Davis**

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the component make and model with your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



**12 May 2022 Diag: Wes Davis**

NORMAL



Resample at the next service interval to monitor. Please specify the component make and model with your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

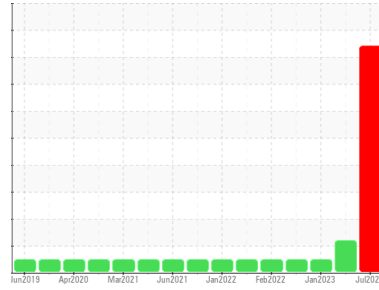
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id  
**2840**

Component  
**Diesel Engine**

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

## 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. Please specify the component make and model with your next sample.

### Wear

All component wear rates are normal.

### Contamination

Test for glycol is positive. There is a high concentration of glycol present in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. 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>GFL0082467</b>	GFL0050765	GFL0050747
Sample Date	Client Info		<b>17 Jul 2023</b>	28 Mar 2023	25 Jan 2023
Machine Age	hrs	Client Info	<b>18886</b>	18267	17729
Oil Age	hrs	Client Info	<b>584</b>	568	624
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>SEVERE</b>	ATTENTION	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>24</b>	18	15
Chromium	ppm	ASTM D5185m >20	<b>1</b>	1	1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>5</b>	6	4
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >330	<b>2</b>	3	3
Tin	ppm	ASTM D5185m >15	<b>0</b>	<1	<1
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>0</b>	3	1
Barium	ppm	ASTM D5185m 0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m 60	<b>57</b>	66	61
Manganese	ppm	ASTM D5185m 0	<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>750</b>	887	934
Calcium	ppm	ASTM D5185m 1070	<b>1351</b>	1103	1046
Phosphorus	ppm	ASTM D5185m 1150	<b>892</b>	1002	986
Zinc	ppm	ASTM D5185m 1270	<b>1095</b>	1223	1189
Sulfur	ppm	ASTM D5185m 2060	<b>3377</b>	3050	3412

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>12</b>	6	4
Sodium	ppm	ASTM D5185m	<b>▲ 137</b>	▲ 185	35
Potassium	ppm	ASTM D5185m >20	<b>▲ 1501</b>	41	1
Glycol	%	*ASTM D2982	<b>● 0.20</b>	0.0	NEG

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.8	0.8
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.2</b>	8.6	8.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.3</b>	19.7	19.2

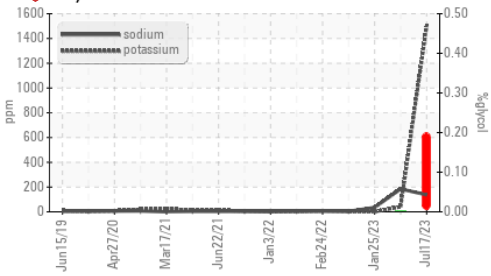
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.3</b>	14.9	14.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>10.5</b>	9.0	8.7



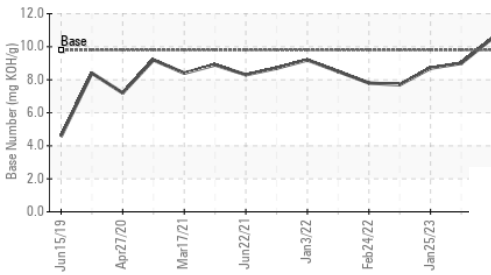
# OIL ANALYSIS REPORT

### Glycol Contamination



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

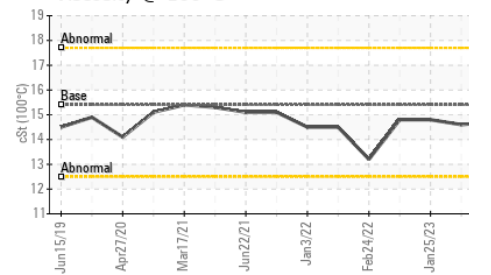
### Base Number



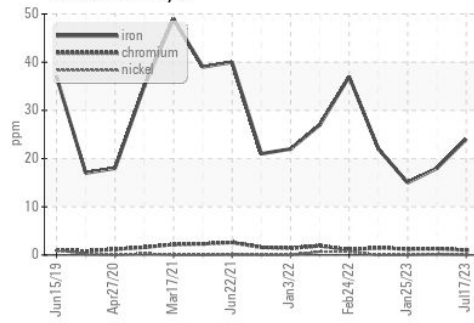
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.7	14.6

### GRAPHS

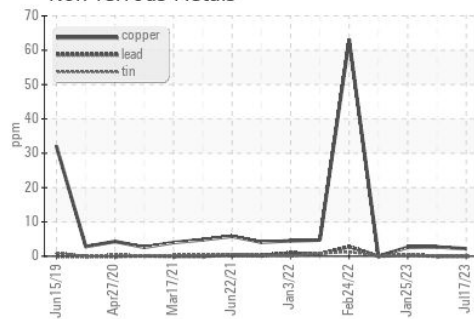
### Viscosity @ 100°C



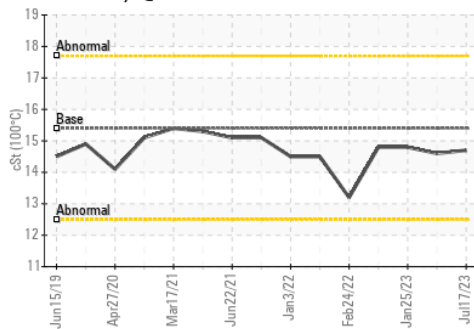
### Ferrous Alloys



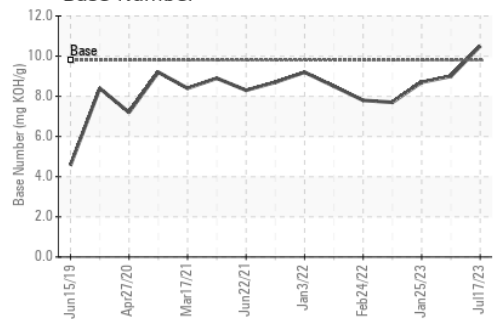
### Non-ferrous Metals



### Viscosity @ 100°C



### Base Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0082467 **Received** : 18 Jul 2023  
**Lab Number** : 05901065 **Diagnosed** : 20 Jul 2023  
**Unique Number** : 10562421 **Diagnostician** : Wes Davis  
**Test Package** : FLEET ( Additional Tests: Glycol )

**GFL Environmental - 007 - Brunswick**  
 2809 Galloway Road  
 Bolivia, NC  
 US 28422  
 Contact: TOMMY DEVINE  
 tommy.devine@gflenv.com  
 T:  
 F: (910)253-4179

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)