



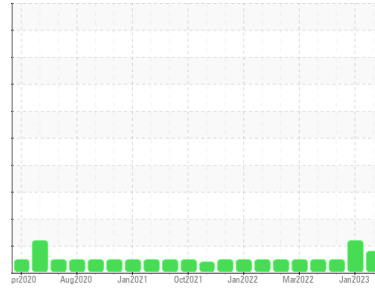
# PROBLEM SUMMARY

Sample Rating Trend

FUEL

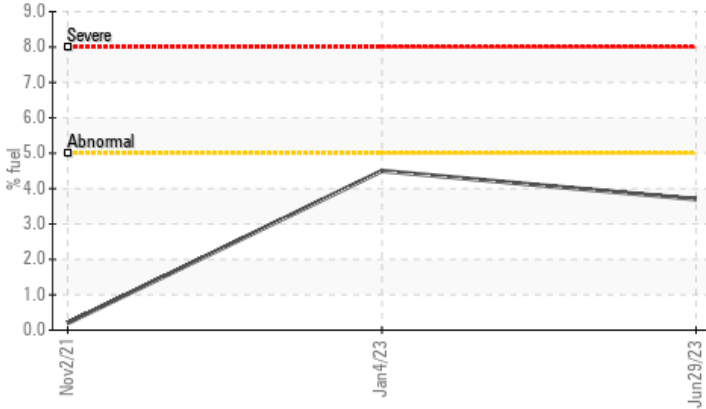


Machine Id  
**910008**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (11 GAL)**



## COMPONENT CONDITION SUMMARY

### ▲ Fuel Dilution



## RECOMMENDATION

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

## PROBLEMATIC TEST RESULTS

Sample Status		MARGINAL	ABNORMAL	NORMAL
Fuel	% ASTM D3524 >5	▲ 3.7	▲ 4.5	<1.0

Customer Id: GFL095  
Sample No.: GFL0083634  
Lab Number: 05888733  
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

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

**04 Jan 2023 Diag: Jonathan Hester**

FUEL



We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



**26 Aug 2022 Diag: Wes Davis**

NORMAL



Resample at the next service interval to monitor. 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



**28 Jun 2022 Diag: Wes Davis**

NORMAL



Resample at the next service interval to monitor. 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.

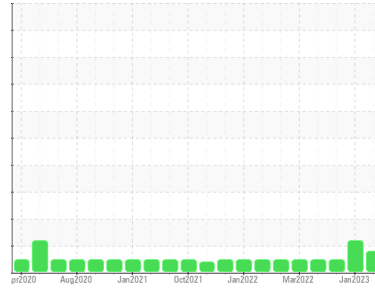
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**910008**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (11 GAL)**

## DIAGNOSIS

### Recommendation

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

### Wear

All component wear rates are normal.

### Contamination

Light fuel dilution occurring. No other contaminants were detected 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	history 1	history 2
Sample Number	Client Info	<b>GFL0083634</b>	GFL0066918	GFL0055696
Sample Date	Client Info	<b>29 Jun 2023</b>	04 Jan 2023	26 Aug 2022
Machine Age	hrs	<b>9384</b>	8073	7532
Oil Age	hrs	<b>466</b>	0	482
Oil Changed	Client Info	<b>Not Changed</b>	Changed	Changed
Sample Status		<b>MARGINAL</b>	ABNORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history 1	history 2
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history 1	history 2	
Iron	ppm	ASTM D5185m >100	<b>9</b>	39	11
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	4	3
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	7	2
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</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	history 1	history 2	
Boron	ppm	ASTM D5185m 0	<b>8</b>	6	10
Barium	ppm	ASTM D5185m 0	<b>2</b>	0	<1
Molybdenum	ppm	ASTM D5185m 60	<b>61</b>	62	62
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>729</b>	792	804
Calcium	ppm	ASTM D5185m 1070	<b>1054</b>	992	999
Phosphorus	ppm	ASTM D5185m 1150	<b>896</b>	862	889
Zinc	ppm	ASTM D5185m 1270	<b>1051</b>	1060	1112
Sulfur	ppm	ASTM D5185m 2060	<b>2901</b>	2895	2728

## CONTAMINANTS

method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185m >25	<b>3</b>	6	5
Sodium	ppm	ASTM D5185m	<b>0</b>	6	4
Potassium	ppm	ASTM D5185m >20	<b>2</b>	14	1
Fuel	%	ASTM D3524 >5	<b>▲ 3.7</b>	▲ 4.5	<1.0

## INFRA-RED

method	limit/base	current	history 1	history 2	
Soot %	%	*ASTM D7844 >3	<b>1.1</b>	1.5	0.6
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.6</b>	10.6	7.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>24.7</b>	22.1	20.1

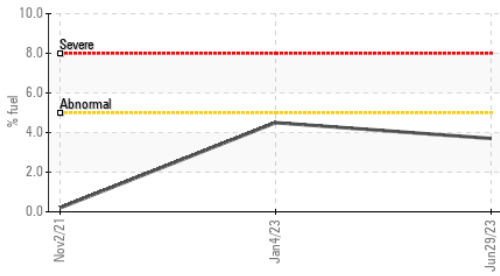
## FLUID DEGRADATION

method	limit/base	current	history 1	history 2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>21.9</b>	16.9	14.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>5.6</b>	6.6	9.1

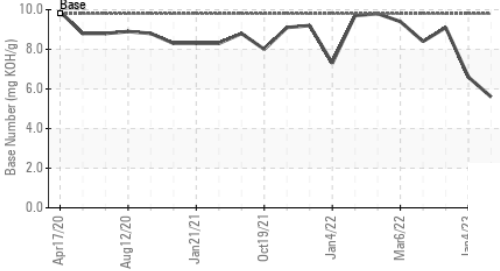


# OIL ANALYSIS REPORT

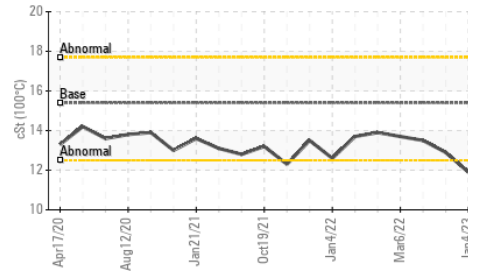
▲ Fuel Dilution



Base Number



Viscosity @ 100°C

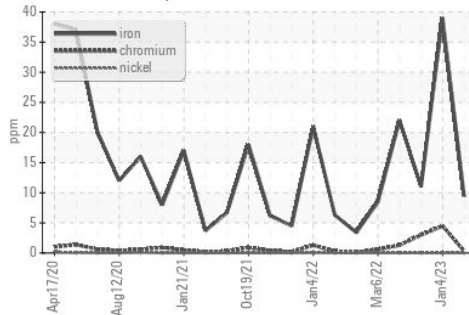


VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

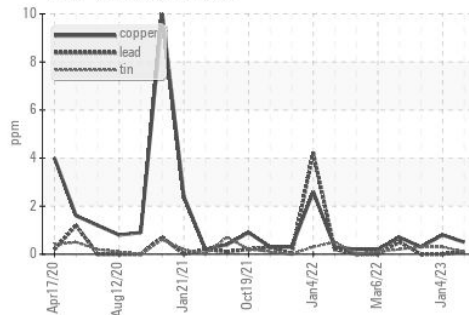
FLUID PROPERTIES	method	limit/base	current	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	15.4	12.8	▲ 11.9	12.9

## GRAPHS

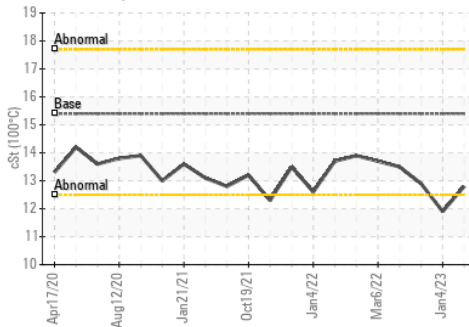
Ferrous Alloys



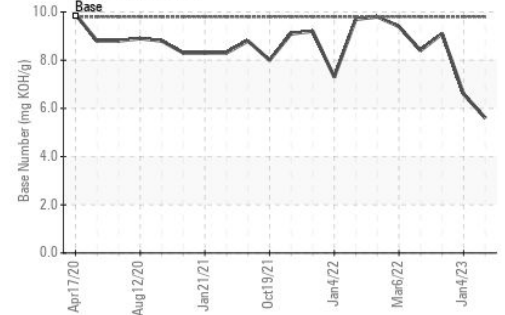
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0083634 **Received** : 03 Jul 2023  
**Lab Number** : 05888733 **Diagnosed** : 05 Jul 2023  
**Unique Number** : 10539216 **Diagnostician** : Wes Davis  
**Test Package** : FLEET ( Additional Tests: PercentFuel )

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)

2699 Cochran Industrial Blvd  
 Douglasville, GA  
 US 30127-1332  
 Contact: Darrell Welch  
 darrell.welch@gflenv.com  
 T: (800)207-6618  
 F: