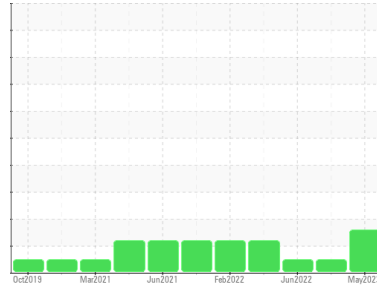




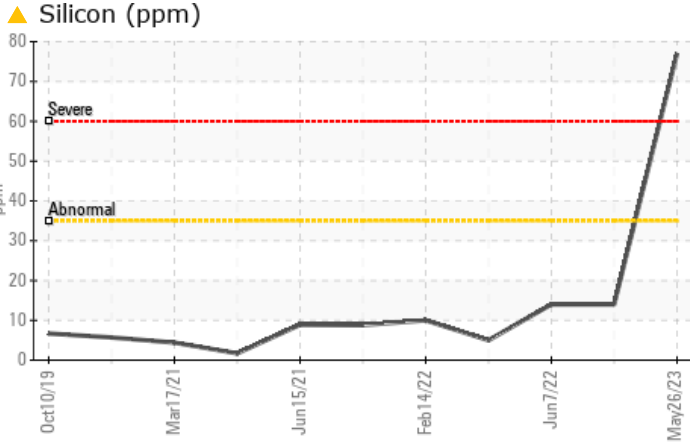
# PROBLEM SUMMARY

Sample Rating Trend



Machine Id  
**2713C**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (11 GAL)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL
Silicon	ppm	ASTM D5185m	>35	<b>▲ 77</b>	14	14

**Customer Id:** GFL019  
**Sample No.:** GFL0058796  
**Lab Number:** 05862799  
**Test Package:** FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

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.

## HISTORICAL DIAGNOSIS

### 03 Aug 2022 Diag: Doug Bogart

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



### 07 Jun 2022 Diag: Jonathan Hester

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



### 03 Mar 2022 Diag: Don Baldrige

GLYCOL



No corrective action is recommended at this time. 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. The condition of the oil is suitable for further service.

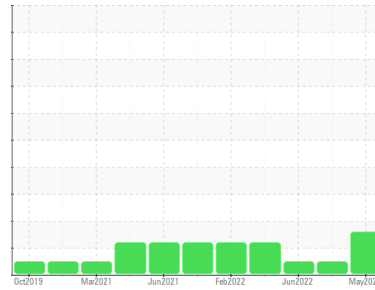
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id  
**2713C**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

### 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>GFL0058796</b>	GFL0039425	GFL0020031
Sample Date	Client Info	<b>26 May 2023</b>	03 Aug 2022	07 Jun 2022
Machine Age	hrs	<b>7556</b>	0	7556
Oil Age	hrs	<b>2772</b>	0	2772
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history 1	history 2
Fuel	WC Method >3.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history 1	history 2
Iron	ppm ASTM D5185m >165	<b>23</b>	25	30
Chromium	ppm ASTM D5185m >5	<b>3</b>	5	4
Nickel	ppm ASTM D5185m >4	<b>1</b>	<1	0
Titanium	ppm ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Silver	ppm ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Aluminum	ppm ASTM D5185m >20	<b>3</b>	2	4
Lead	ppm ASTM D5185m >150	<b>2</b>	3	2
Copper	ppm ASTM D5185m >90	<b>2</b>	2	3
Tin	ppm ASTM D5185m >5	<b>&lt;1</b>	1	<1
Antimony	ppm ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm ASTM D5185m	<b>&lt;1</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>5</b>	17	13
Barium	ppm ASTM D5185m 0	<b>0</b>	0	2
Molybdenum	ppm ASTM D5185m 60	<b>64</b>	53	51
Manganese	ppm ASTM D5185m 0	<b>3</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>787</b>	556	468
Calcium	ppm ASTM D5185m 1070	<b>1370</b>	1466	1496
Phosphorus	ppm ASTM D5185m 1150	<b>916</b>	703	640
Zinc	ppm ASTM D5185m 1270	<b>1260</b>	933	917
Sulfur	ppm ASTM D5185m 2060	<b>3035</b>	2397	2132

## CONTAMINANTS

method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185m >35	<b>▲ 77</b>	14	14
Sodium	ppm ASTM D5185m	<b>27</b>	39	30
Potassium	ppm ASTM D5185m >20	<b>24</b>	6	5

## INFRA-RED

method	limit/base	current	history 1	history 2
Soot %	% *ASTM D7844 >7.5	<b>0</b>	0.1	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>10.3</b>	11.2	10.9
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>23.7</b>	25.0	21.1

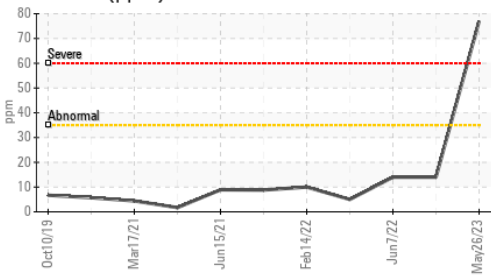
## FLUID DEGRADATION

method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.9</b>	20.7	17.9
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>4.0</b>	5.5	5.1

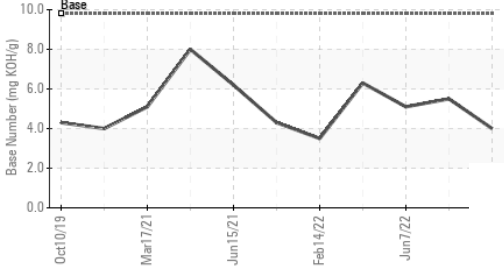


# OIL ANALYSIS REPORT

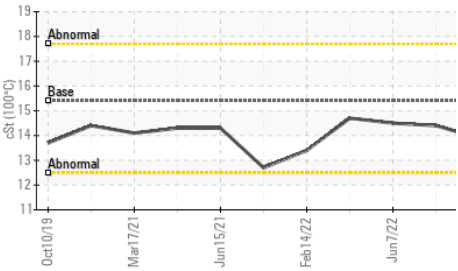
▲ Silicon (ppm)



Base Number



Viscosity @ 100°C

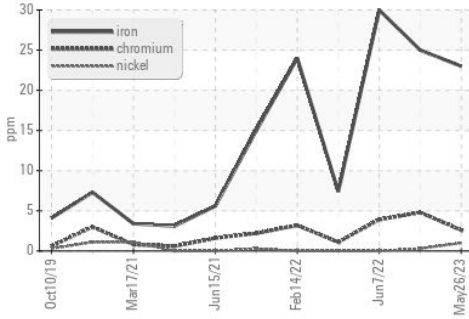


VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

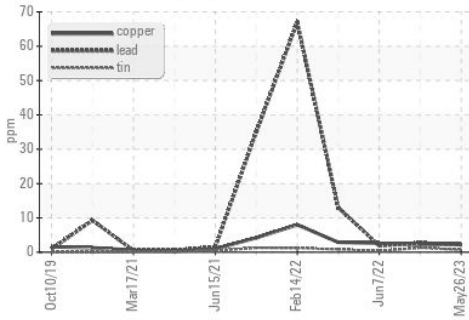
FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	14.4

## GRAPHS

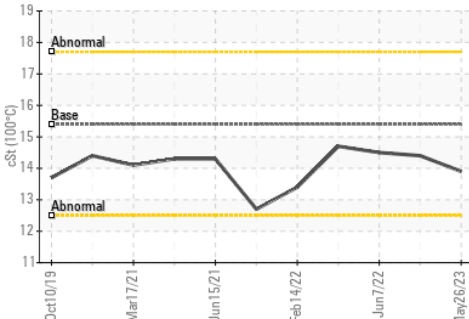
Ferrous Alloys



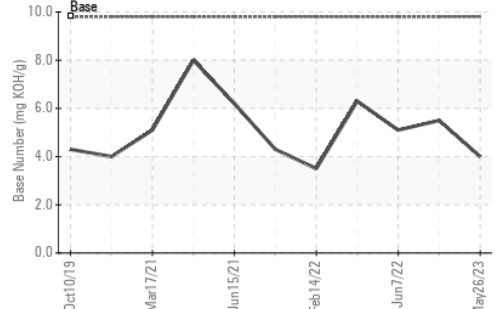
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0058796 **Received** : 02 Jun 2023  
**Lab Number** : 05862799 **Diagnosed** : 05 Jun 2023  
**Unique Number** : 10497264 **Diagnostician** : Jonathan Hester  
**Test Package** : FLEET

**GFL Environmental - 019 - Greenville/TriEast**  
 415 Staton Road  
 Greenville, NC  
 US 27834  
 Contact: Spencer Ligon  
 spencer.ligon@gflenv.com  
 T: (800)207-6618  
 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)