

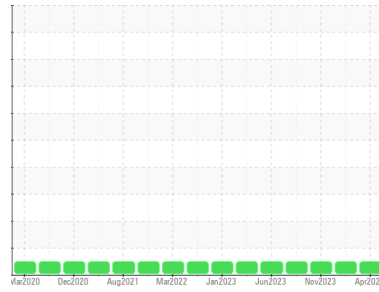


# OIL ANALYSIS REPORT



Machine Id  
**OR564**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (24 LTR)**

## Sample Rating Trend



**NORMAL**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0113416</b>	GFL0092218	GFL0092244
Sample Date	Client Info		<b>25 Apr 2024</b>	09 Feb 2024	15 Nov 2023
Machine Age	hrs	Client Info	<b>21261</b>	20550	19711
Oil Age	hrs	Client Info	<b>711</b>	19711	500
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>51	<b>18</b>	21	25
Chromium	ppm	ASTM D5185(m)	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>31	<b>1</b>	2	1
Lead	ppm	ASTM D5185(m)	>26	<b>&lt;1</b>	<1	1
Copper	ppm	ASTM D5185(m)	>26	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
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>4</b>	8	4
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>57</b>	53	60
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185(m)	1010	<b>924</b>	858	957
Calcium	ppm	ASTM D5185(m)	1070	<b>1127</b>	1273	1096
Phosphorus	ppm	ASTM D5185(m)	1150	<b>999</b>	1007	1027
Zinc	ppm	ASTM D5185(m)	1270	<b>1173</b>	1170	1193
Sulfur	ppm	ASTM D5185(m)	2060	<b>2509</b>	2708	2567
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

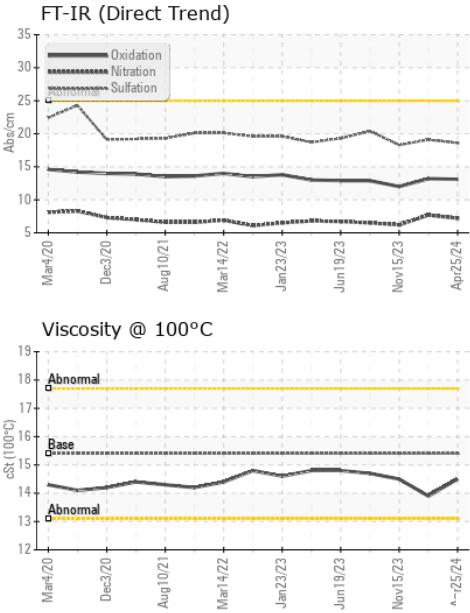
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>22	<b>2</b>	3	3
Sodium	ppm	ASTM D5185(m)	>31	<b>1</b>	1	2
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0.9</b>	1	1
Nitration	Abs/cm	ASTM D7624*	>20	<b>7.2</b>	7.7	6.2
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>18.6</b>	19.1	18.3



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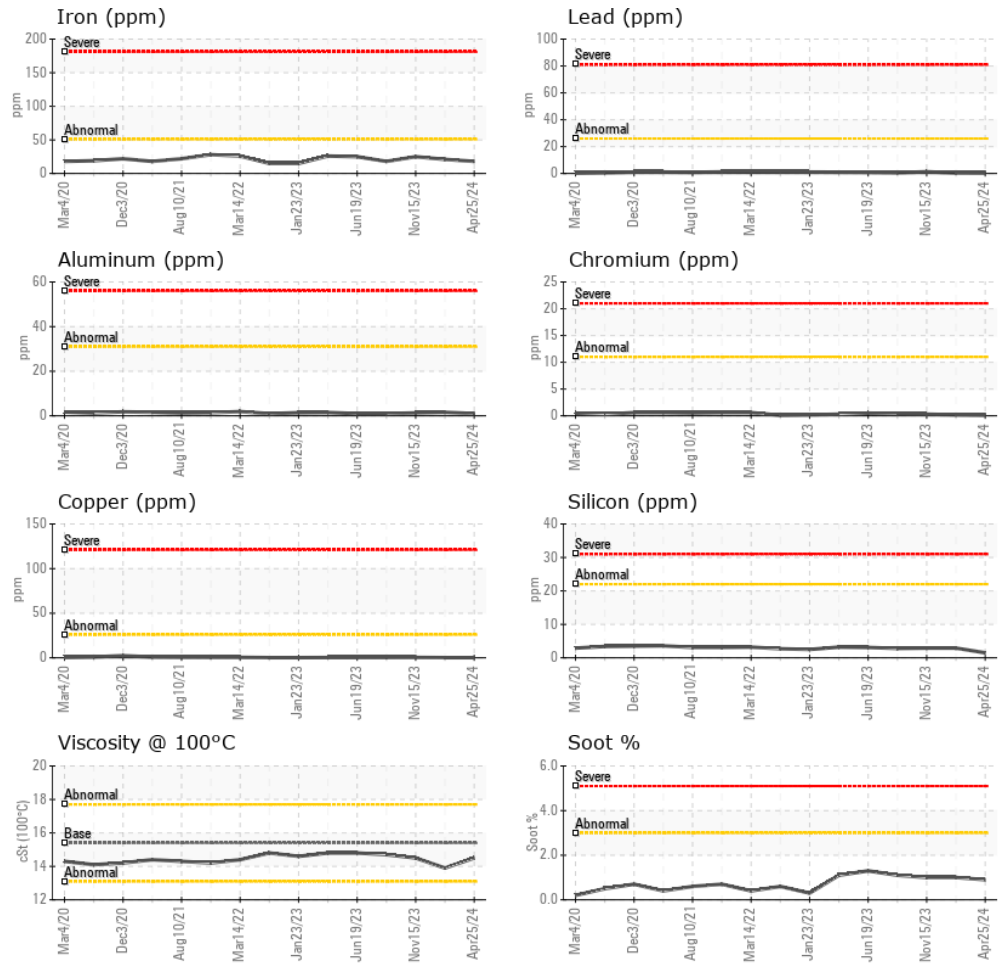


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>13.1</b>	13.2	12.0

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.21	<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)	15.4	<b>14.5</b>	13.9	14.5

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 720 - Lafleche - Landfill**  
**Sample No.** : GFL0113416 **Received** : 02 May 2024 17125 Lafleche Road,  
**Lab Number** : **02632666** **Tested** : 02 May 2024 Moose Creek, ON  
**Unique Number** : 5773819 **Diagnosed** : 02 May 2024 - Wes Davis CA K0C 1W0  
**Test Package** : MOB 1 ( Additional Tests: Visual ) Contact: Charles Bergeron  
 cbergeron@gflenv.com

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. T: (613)538-4853  
 F: