



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**901084**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (40 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC956150</b>	WC956168	WC958651
Sample Date		Client Info		<b>29 Feb 2024</b>	05 Feb 2024	12 Mar 2023
Machine Age	mths	Client Info		<b>0</b>	20840	19021
Oil Age	mths	Client Info		<b>3</b>	0	0
Filter Age	mths	Client Info		<b>3</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	<b>9</b>	16	20
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<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>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>3</b>	3	10
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	2	12
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## CONTAMINATION

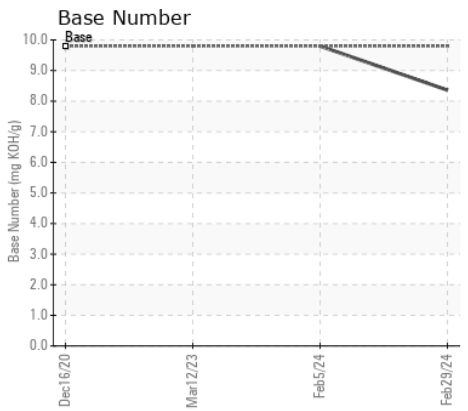
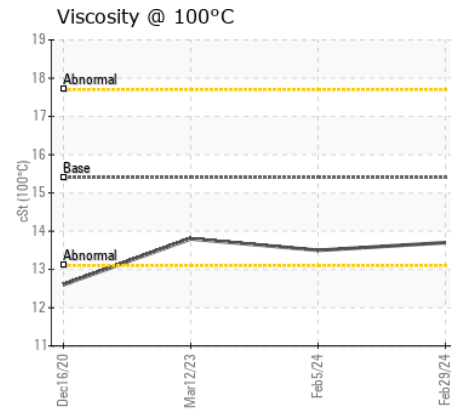
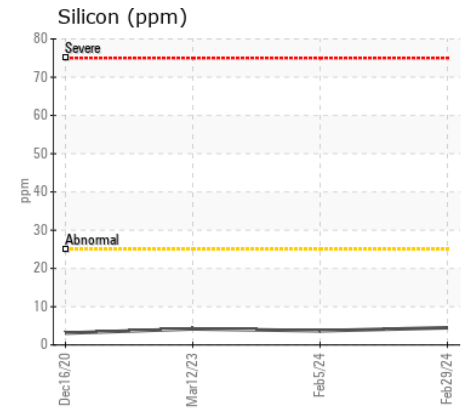
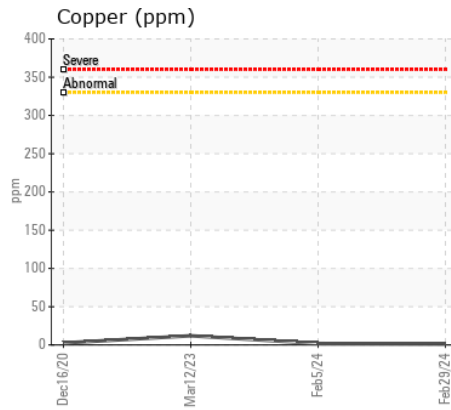
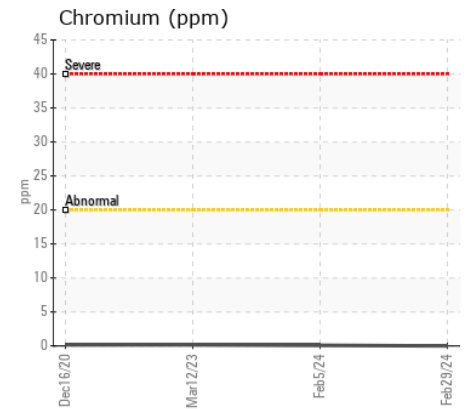
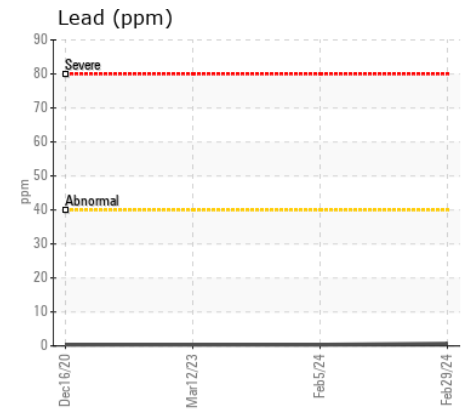
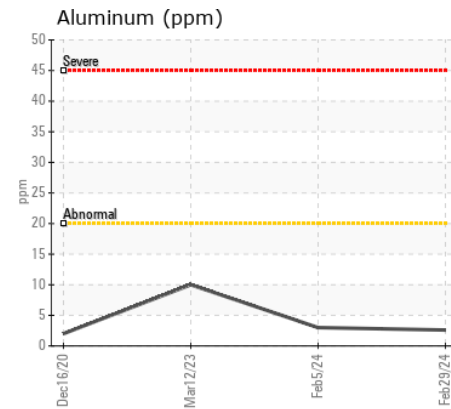
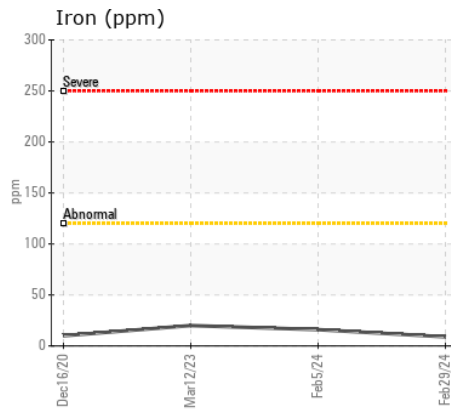
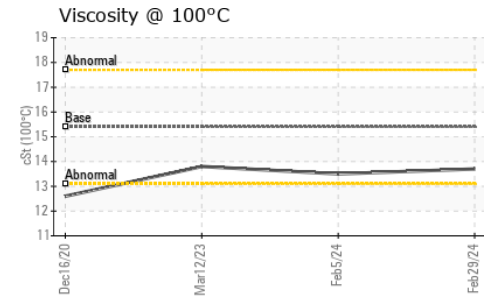
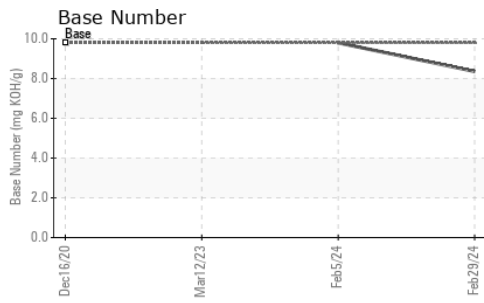
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	4	4
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	1	9
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	0.0
Soot %	%	ASTM D7844*	>4	<b>0.1</b>	0.3	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.8</b>	10.0	8.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>18.8</b>	19.3	21.9
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

## 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.

Sodium	ppm	ASTM D5185(m)		<b>3</b>	6	5
Boron	ppm	ASTM D5185(m)	0	<b>6</b>	4	10
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>62</b>	58	60
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>901</b>	920	929
Calcium	ppm	ASTM D5185(m)	1070	<b>1067</b>	1046	1175
Phosphorus	ppm	ASTM D5185(m)	1150	<b>960</b>	948	1058
Zinc	ppm	ASTM D5185(m)	1270	<b>1105</b>	1167	1204
Sulfur	ppm	ASTM D5185(m)	2060	<b>2597</b>	2689	2583
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>14.4</b>	15.5	15.3
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	<b>8.36</b>	9.80	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>13.7</b>	13.5	13.8



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC956150  
**Lab Number** : 02619455  
**Unique Number** : 5736565  
**Test Package** : MOB 2  
**Received** : 04 Mar 2024  
**Tested** : 05 Mar 2024  
**Diagnosed** : 05 Mar 2024 - Kevin Marson

**GFL Environmental - 870 - St John s**  
 19 Harding Road,  
 St. John's, NL  
 CA A1A 5T8  
 Contact: Angus Molloy  
 amolloy@gflenv.com  
 T: (709)739-9302  
 F:

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.