



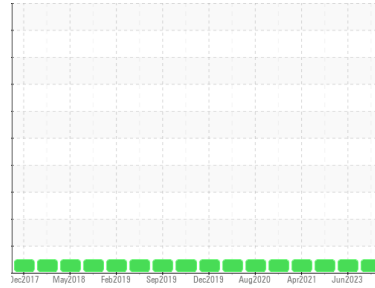
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**56000 series**  
 Machine Id  
**Freightliner 56146**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (40 LTR)**



## 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>WC0837210</b>	WC0817377	WC0651271
Sample Date	Client Info		<b>24 Nov 2023</b>	06 Jun 2023	24 Jan 2022
Machine Age	mls	Client Info	<b>588135</b>	548812	468793
Oil Age	mls	Client Info	<b>39323</b>	40225	37820
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	>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	NEG

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>65	<b>55</b>	53	31
Chromium	ppm	ASTM D5185(m)	>5	<b>5</b>	4	3
Nickel	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	0
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>35	<b>31</b>	29	18
Lead	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185(m)	>180	<b>8</b>	10	7
Tin	ppm	ASTM D5185(m)	>8	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)	>35	<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)	2	<b>1</b>	1	2
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>63</b>	65	62
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	<b>1005</b>	1046	1063
Calcium	ppm	ASTM D5185(m)	1050	<b>1092</b>	1123	1127
Phosphorus	ppm	ASTM D5185(m)	995	<b>980</b>	1072	1052
Zinc	ppm	ASTM D5185(m)	1180	<b>1258</b>	1256	1288
Sulfur	ppm	ASTM D5185(m)	2600	<b>2112</b>	2141	2172
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

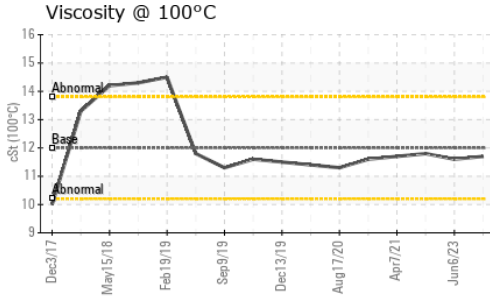
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>15	<b>6</b>	7	6
Sodium	ppm	ASTM D5185(m)		<b>3</b>	5	3
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	3	2

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>3	<b>0.7</b>	0.6	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.3</b>	10.0	4.0
Sulfation	Abs.1mm	ASTM D7415*	>30	<b>23.1</b>	22.1	13.7



# OIL ANALYSIS REPORT

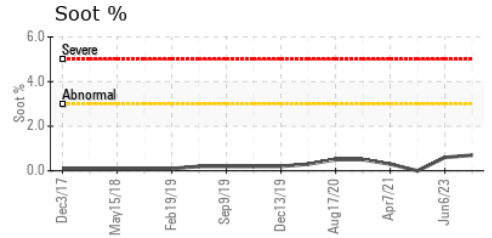
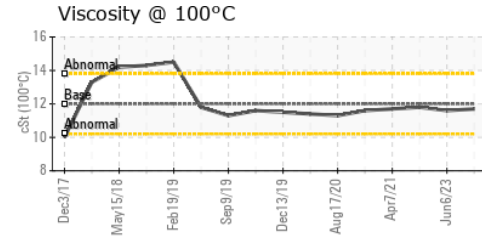
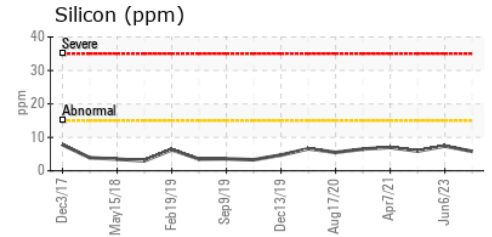
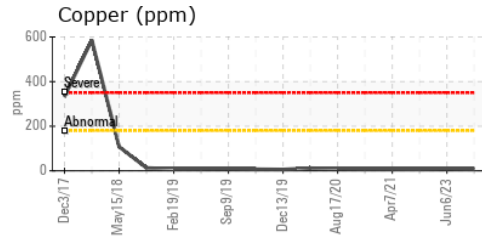
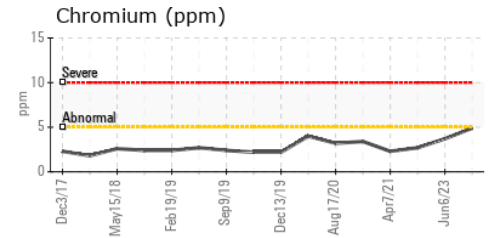
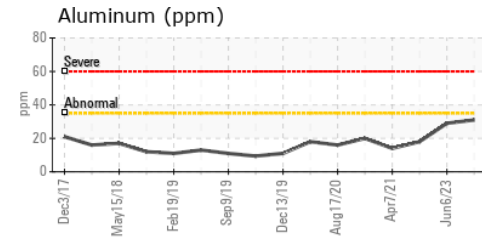
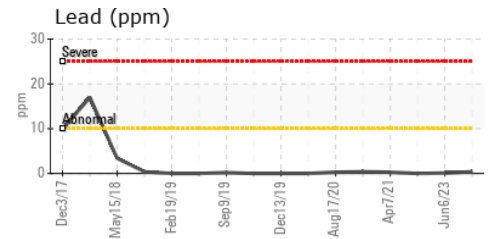
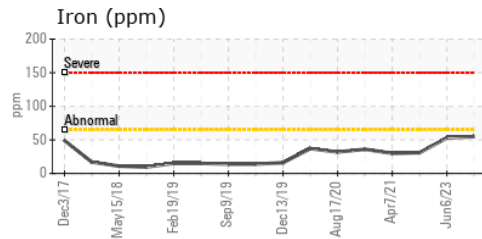


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>20.4</b>	19.0	7.1

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	---	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<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)	12.00	<b>11.7</b>	11.6	11.8

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **MANITOULIN TRANSPORT (GARAGE)**  
**Sample No.** : WC0837210 **Received** : 05 Dec 2023 1335 SHAWSON DRIVE  
**Lab Number** : 02600880 **Diagnosed** : 05 Dec 2023 MISSISSAUGA, ON  
**Unique Number** : 5693965 **Diagnostician** : Wes Davis CA L4W 1C4  
**Test Package** : MOB 1 ( Additional Tests: Visual ) Contact: Travis Spence

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.