



# OIL ANALYSIS REPORT

Sample Rating Trend

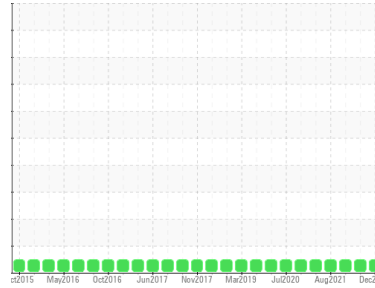
**NORMAL**



Area  
**52000 series [1761800]**  
Machine Id  
**Navistar 52678**

Component  
**Diesel Engine**  
Fluid

**PETRO CANADA DURON SHP 15W40 (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>WC0886692</b>	WC0759713	WC0694032
Sample Date	Client Info			<b>17 Dec 2023</b>	23 Dec 2022	30 Jul 2022
Machine Age	mls	Client Info		<b>588383</b>	609590	587334
Oil Age	mls	Client Info		<b>9350</b>	22256	25453
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)	>90	<b>30</b>	7	21
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	2	2
Lead	ppm	ASTM D5185(m)	>40	<b>5</b>	<1	2
Copper	ppm	ASTM D5185(m)	>330	<b>1</b>	<1	2
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	0	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	<1	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

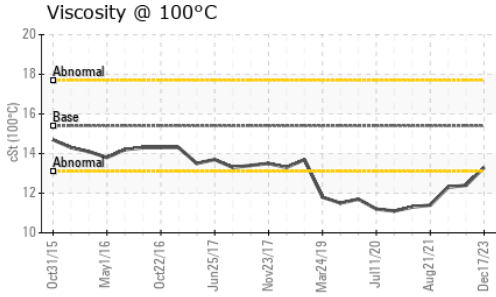
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<b>4</b>	3	2
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>66</b>	60	61
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>1053</b>	986	1027
Calcium	ppm	ASTM D5185(m)	1070	<b>1174</b>	1118	1172
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1122</b>	1110	1052
Zinc	ppm	ASTM D5185(m)	1270	<b>1300</b>	1208	1281
Sulfur	ppm	ASTM D5185(m)	2060	<b>2836</b>	2742	2621
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<b>5</b>	14	18
Sodium	ppm	ASTM D5185(m)		<b>2</b>	7	8
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	1	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	<b>0.6</b>	0	0.3
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.6</b>	6.4	9.8
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>23.7</b>	19.5	21.2

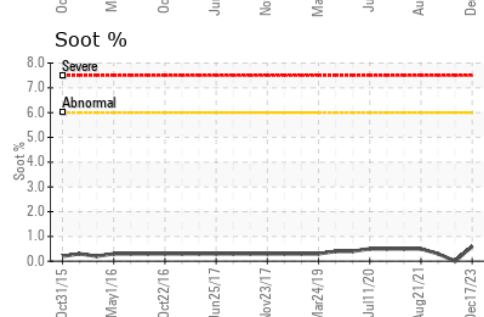
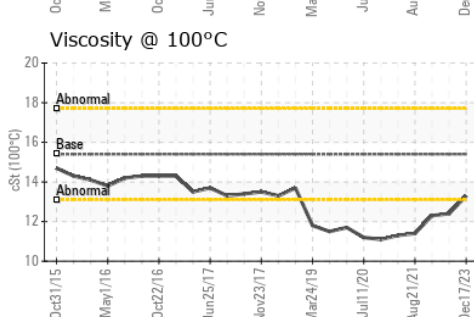
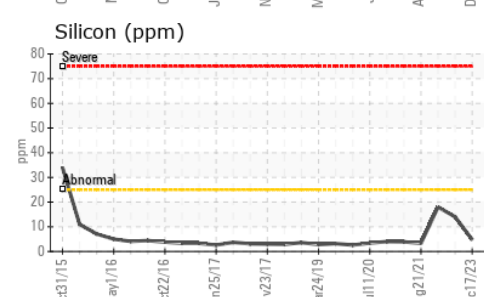
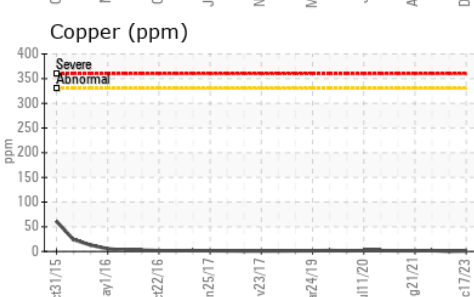
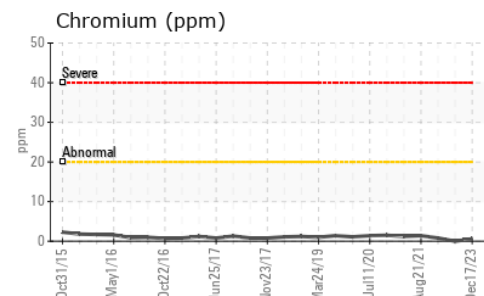
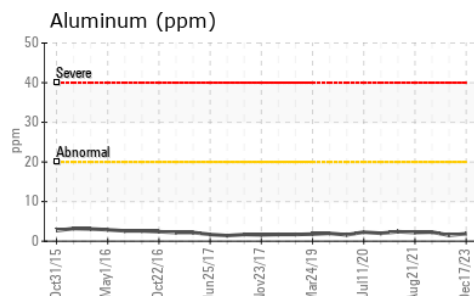
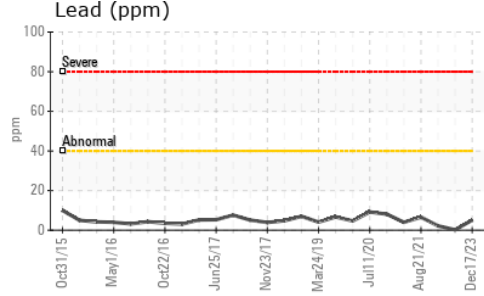
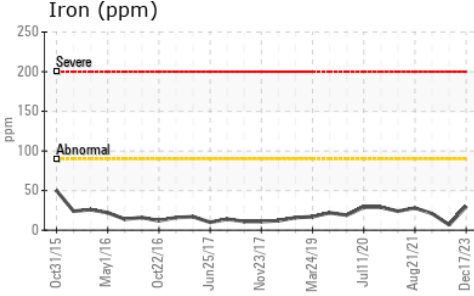


# OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>22.3</b>	14.2	17.5
VISUAL		method	limit/base	current	history1	history2
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)	15.4	<b>13.3</b>	12.4	12.3

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **MANITOU LIN TRANSPORT (GARAGE)**  
**Sample No.** : WC0886692 **Received** : 22 Dec 2023 1335 SHAWSON DRIVE  
**Lab Number** : **02604906** **Diagnosed** : 22 Dec 2023 MISSISSAUGA, ON  
**Unique Number** : 5697991 **Diagnostician** : Wes Davis CA L4W 1C4  
**Test Package** : MOB 1

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.

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