



# OIL ANALYSIS REPORT

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

Area  
**52000 series**  
 Machine Id  
**INTERNATIONAL 52677M**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (40 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC</b>	WC0844377	WC0753935
Sample Date		Client Info		<b>14 Feb 2024</b>	28 Jan 2024	03 Nov 2022
Machine Age	mls	Client Info		<b>0</b>	572569	526355
Oil Age	mls	Client Info		<b>0</b>	24996	18770
Filter Age	mls	Client Info		<b>0</b>	24996	18770
Oil Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ATTENTION	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>165	<b>11</b>	63	40
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	3	1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	3	0
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	6	4
Lead	ppm	ASTM D5185(m)	>150	<b>1</b>	7	3
Copper	ppm	ASTM D5185(m)	>90	<b>2</b>	11	3
Tin	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<b>▲ 4</b>	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

## CONTAMINATION

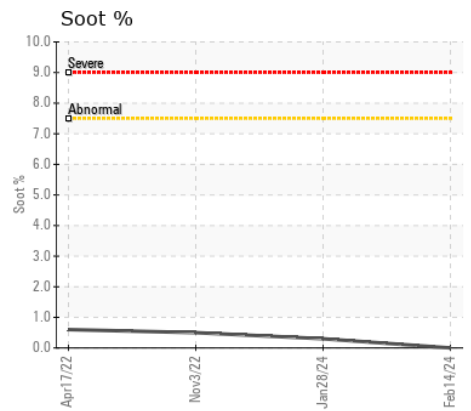
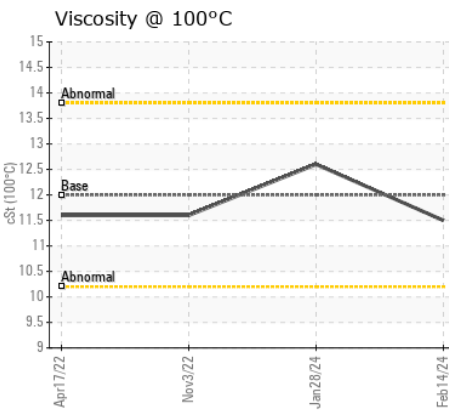
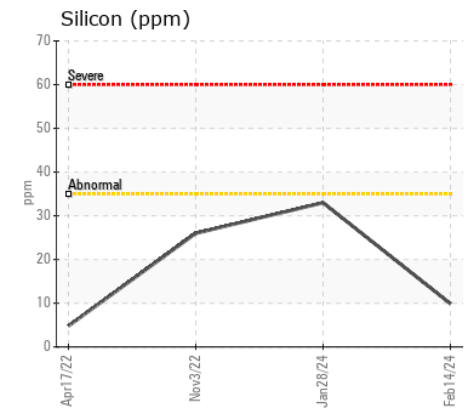
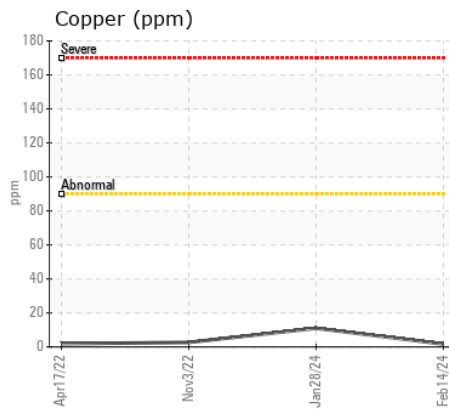
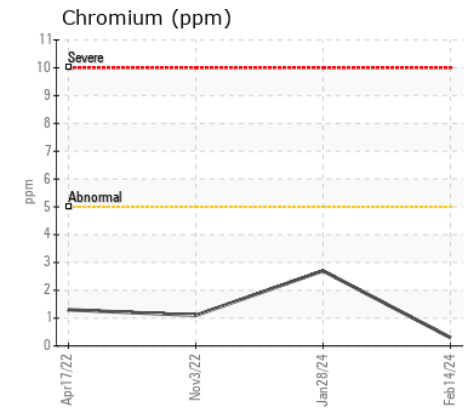
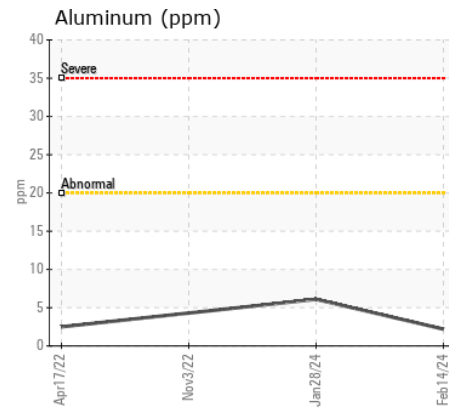
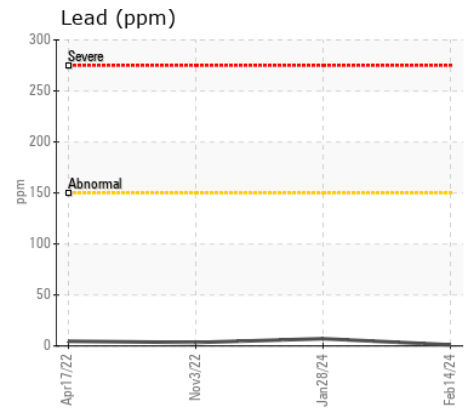
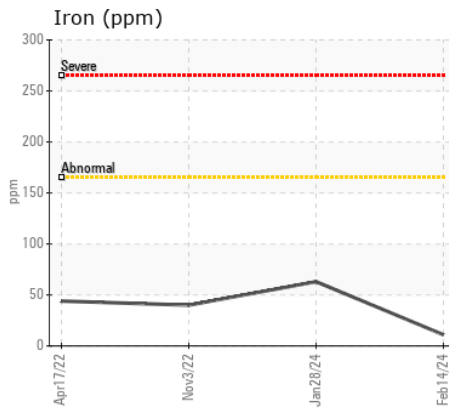
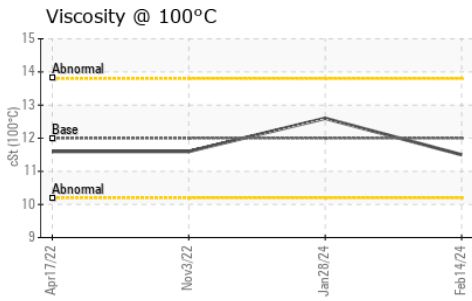
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>35	<b>10</b>	33	26
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	9	0
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
Soot %	%	ASTM D7844*	>7.5	<b>0</b>	0.3	0.5
Nitration	Abs/cm	ASTM D7624*	>20	<b>5.0</b>	9.4	11.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>17.9</b>	20.8	23.4
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

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<b>2</b>	7	5
Boron	ppm	ASTM D5185(m)	2	<b>8</b>	1	1
Barium	ppm	ASTM D5185(m)	0	<b>2</b>	16	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>57</b>	61	64
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	4	<1
Magnesium	ppm	ASTM D5185(m)	950	<b>940</b>	1026	1031
Calcium	ppm	ASTM D5185(m)	1050	<b>1037</b>	1134	1150
Phosphorus	ppm	ASTM D5185(m)	995	<b>1011</b>	1028	1134
Zinc	ppm	ASTM D5185(m)	1180	<b>1146</b>	1230	1286
Sulfur	ppm	ASTM D5185(m)	2600	<b>2765</b>	2771	2678
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>13.3</b>	15.5	19.4
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	<b>11.5</b>	12.6	11.6



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC  
**Lab Number** : 02616913  
**Unique Number** : 5734023  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**Received** : 21 Feb 2024  
**Tested** : 21 Feb 2024  
**Diagnosed** : 21 Feb 2024 - Wes Davis

**MANITOU LIN TRANSPORT**  
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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.