

Machine Id  
**WESTERN STAR R736**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON HP 15W40 (--- LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0081829</b>	PC0082820	PC0082861
Sample Date		Client Info		<b>06 Apr 2024</b>	12 Jan 2024	02 Oct 2023
Machine Age	kms	Client Info		<b>606340</b>	576471	544720
Oil Age	kms	Client Info		<b>29869</b>	31751	32242
Filter Age	kms	Client Info		<b>29869</b>	31751	32242
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	<b>15</b>	17	12
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>30	<b>6</b>	7	3
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>30	<b>5</b>	7	5
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	NONE
Yellow Metal	scalar	Visual*	NONE	<b>VLITE</b>	---	VLITE

**CONTAMINATION**

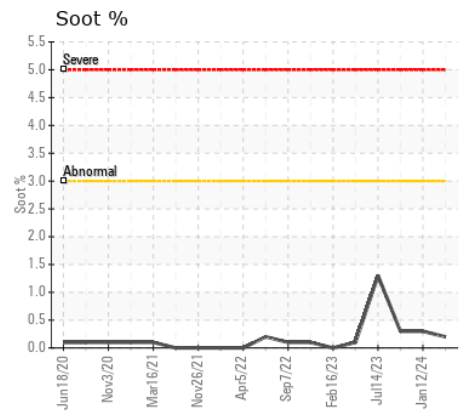
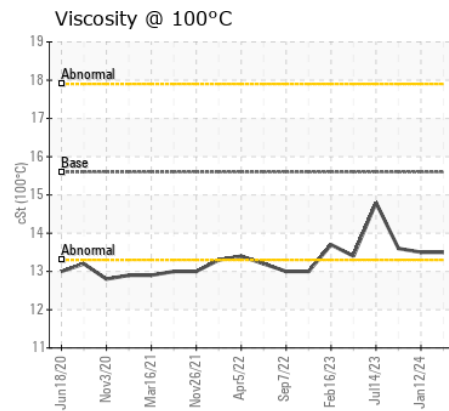
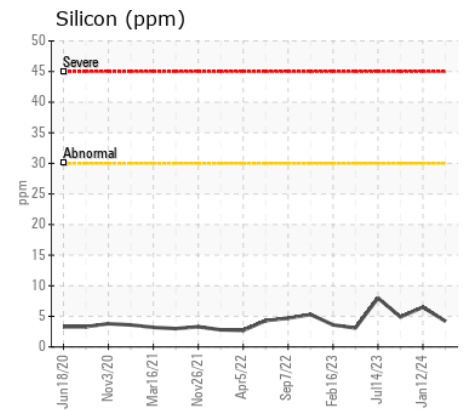
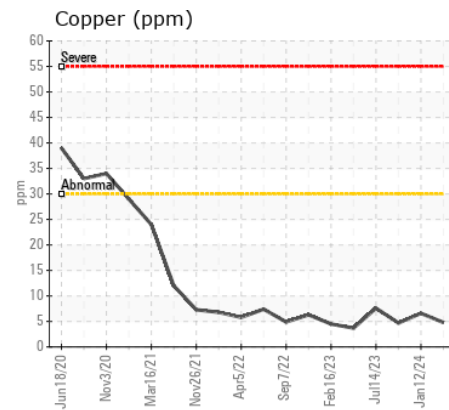
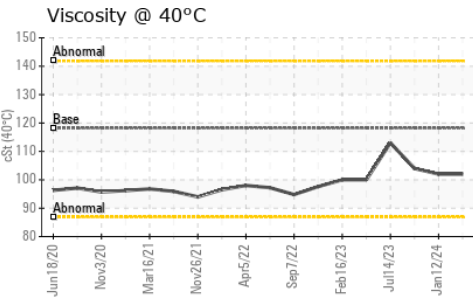
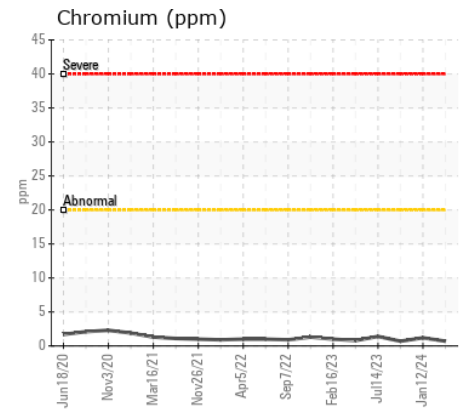
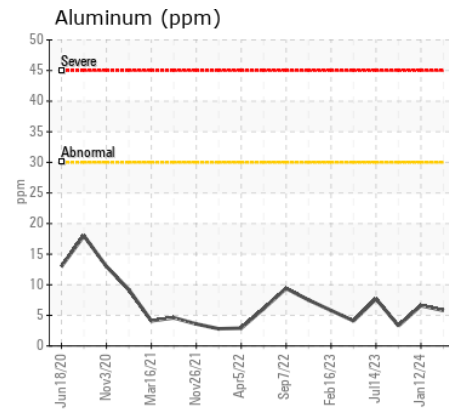
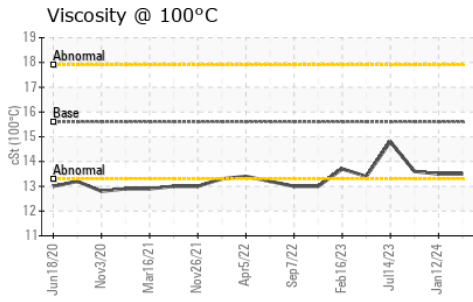
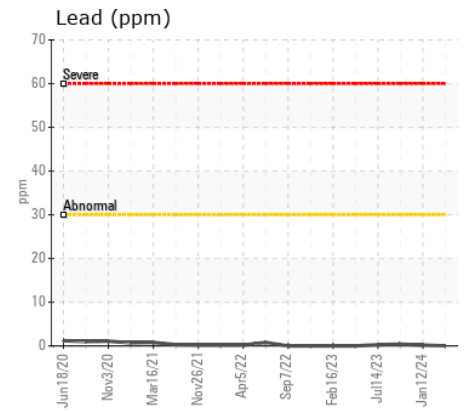
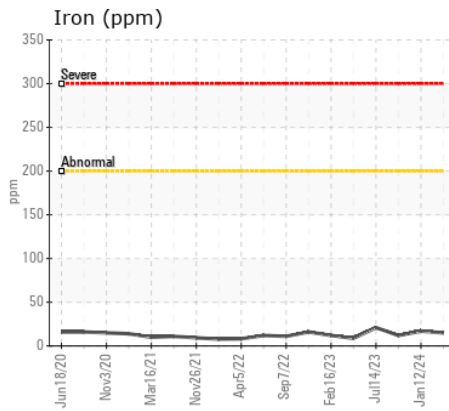
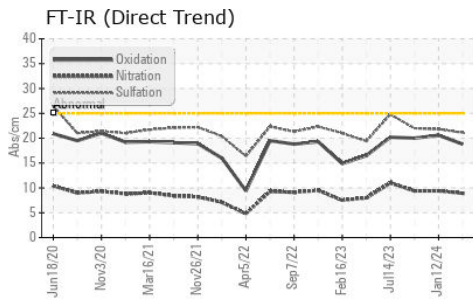
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>30	<b>4</b>	6	5
Potassium	ppm	ASTM D5185(m)	>20	<b>3</b>	3	<1
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*	>3	<b>0.2</b>	0.3	0.3
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.9</b>	9.4	9.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.1</b>	21.8	22.0
Silt	scalar	Visual*	NONE	<b>VLITE</b>	---	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	VLITE
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*	>0.2	<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>1</b>	2	2
Boron	ppm	ASTM D5185(m)	0	<b>1</b>	3	3
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	<b>63</b>	65	65
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185(m)	1010	<b>1023</b>	1018	1022
Calcium	ppm	ASTM D5185(m)	1070	<b>1117</b>	1139	1132
Phosphorus	ppm	ASTM D5185(m)	1150	<b>996</b>	1022	1021
Zinc	ppm	ASTM D5185(m)	1270	<b>1248</b>	1285	1278
Sulfur	ppm	ASTM D5185(m)	2060	<b>2117</b>	2295	2163
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>18.8</b>	20.6	20.0
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	<b>102</b>	102	104
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	<b>13.5</b>	13.5	13.6
Viscosity Index (VI)	Scale	ASTM D2270*	139	<b>131</b>	131	130



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0081829  
**Lab Number** : 02636276  
**Unique Number** : 5785438  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

**RENEWABLE FOREST PRODUCTS**  
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 ROSSLYN, ON  
 CA P7C 5M9  
 Contact: Service Manager  
 purchasing@renewablefp.com  
 T: (807)939-1182  
 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.