



# WEAR CHECK

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id  
**719**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- QTS)**

### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0725874</b>	WC0725868	---
Sample Date		Client Info		<b>02 Aug 2023</b>	03 Feb 2023	---
Machine Age	mls	Client Info		<b>149914</b>	144250	---
Oil Age	mls	Client Info		<b>0</b>	5000	---
Filter Age	mls	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>ATTENTION</b>	ABNORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>46</b>	58	---
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	---
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>12</b>	▲ 25	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	6	---
Lead	ppm	ASTM D5185m	>40	<b>1</b>	<1	---
Copper	ppm	ASTM D5185m	>330	<b>10</b>	6	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

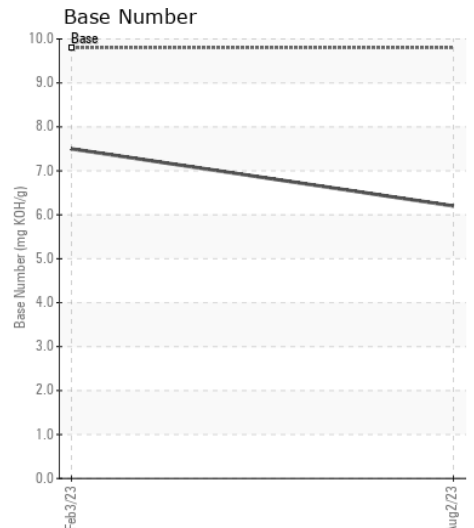
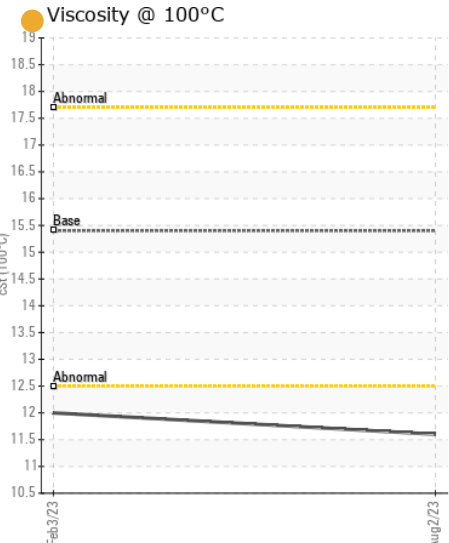
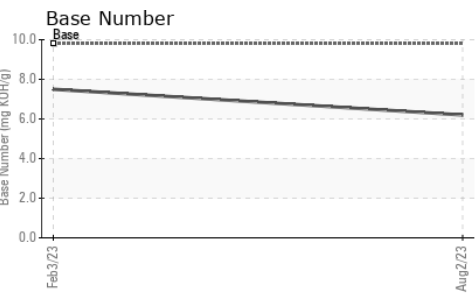
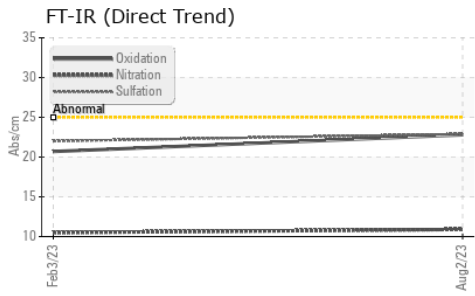
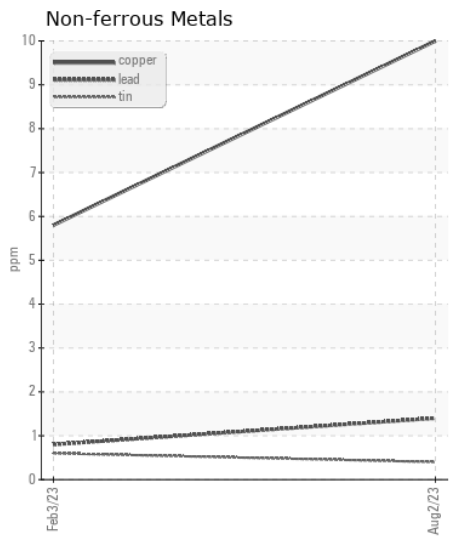
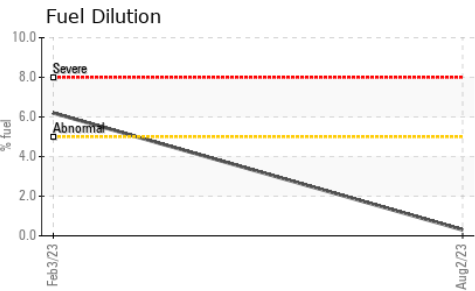
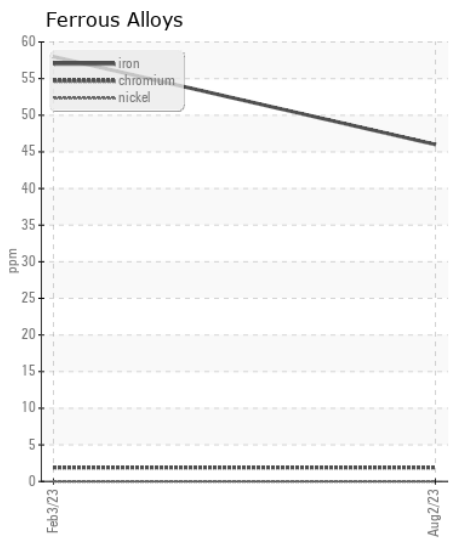
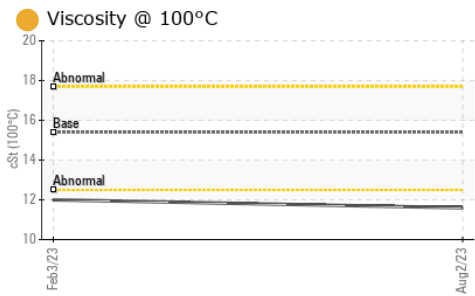
Fuel content negligible. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	8	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	---
Fuel	%	ASTM D3524	>5	<b>0.3</b>	▲ 6.2	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>0.7</b>	0.7	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.9</b>	10.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.9</b>	22.0	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
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	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

### FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		<b>2</b>	<1	---
Boron	ppm	ASTM D5185m	0	<b>27</b>	32	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	60	<b>58</b>	41	---
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	1	---
Magnesium	ppm	ASTM D5185m	1010	<b>857</b>	665	---
Calcium	ppm	ASTM D5185m	1070	<b>1169</b>	1142	---
Phosphorus	ppm	ASTM D5185m	1150	<b>978</b>	922	---
Zinc	ppm	ASTM D5185m	1270	<b>1151</b>	1076	---
Sulfur	ppm	ASTM D5185m	2060	<b>3414</b>	2925	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>22.8</b>	20.7	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.2</b>	7.5	---
Visc @ 100°C	cSt	ASTM D445	15.4	● <b>11.6</b>	▲ 12.0	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0725874 **Received** : 07 Aug 2023  
**Lab Number** : 05917130 **Tested** : 08 Aug 2023  
**Unique Number** : 10589044 **Diagnosed** : 08 Aug 2023 - Doug Bogart  
**Test Package** : FLEET ( Additional Tests: PercentFuel )

**AREA TRANSPORTATION AUTHORITY**  
 44 TRANSPORTATION CENTER  
 JOHNSONBURG, PA  
 US 15845  
 Contact: J SCHLODER  
 jschloder@rideata.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)