



# WEAR CHECK

## OIL ANALYSIS REPORT

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

Machine Id  
**721**  
 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>WC0870213</b>	WC0725861	WC0817210
Sample Date		Client Info		<b>20 Jun 2024</b>	30 Apr 2024	21 Feb 2024
Machine Age	hrs	Client Info		<b>267103</b>	21155	20920
Oil Age	hrs	Client Info		<b>0</b>	21155	20920
Filter Age	hrs	Client Info		<b>0</b>	21155	20920
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>MARGINAL</b>	ABNORMAL	MARGINAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>9</b>	12	7
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	2	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	1	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	2	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

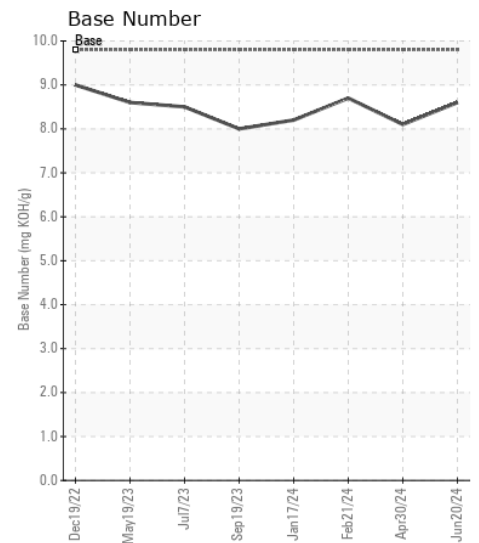
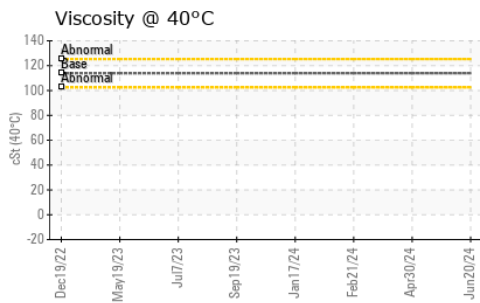
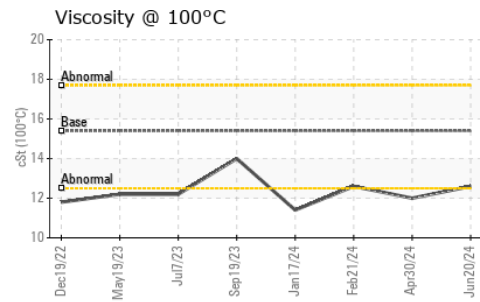
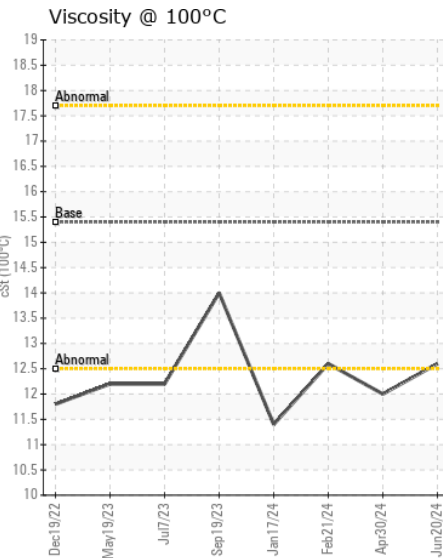
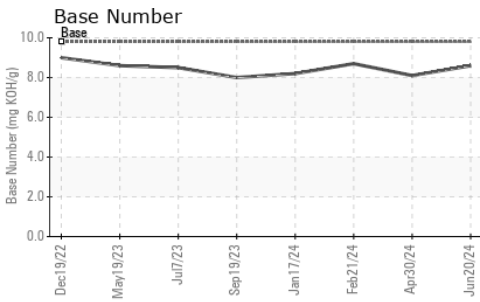
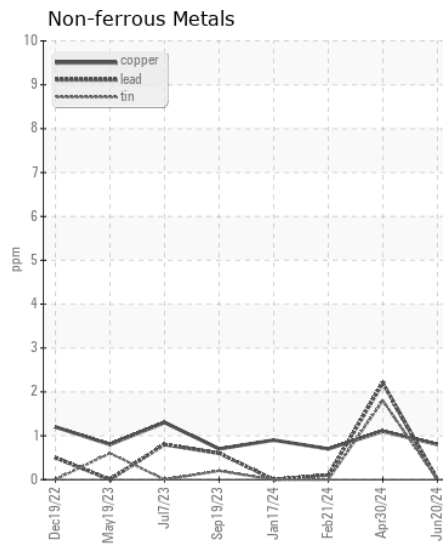
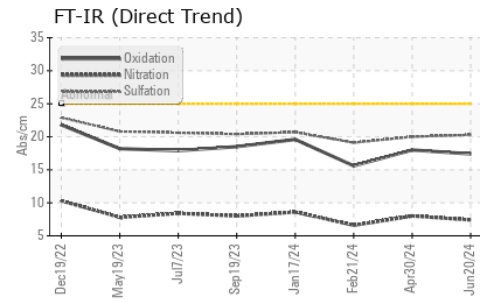
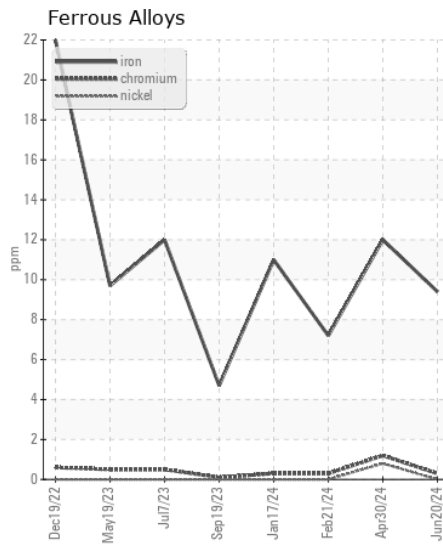
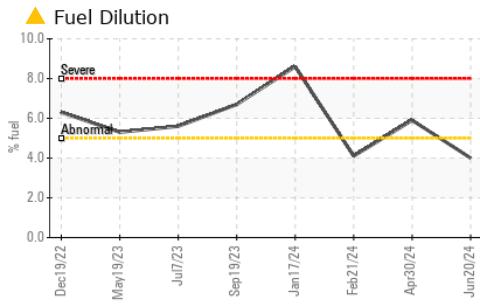
Light fuel dilution occurring.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	3
Potassium	ppm	ASTM D5185m	>20	<b>11</b>	14	11
Fuel	%	ASTM D3524	>5	<b>▲ 4.0</b>	▲ 5.9	▲ 4.1
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.4</b>	8.0	6.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.3</b>	20.0	19.1
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>2</b>	4	3
Boron	ppm	ASTM D5185m	0	<b>4</b>	8	8
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>54</b>	52	62
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>933</b>	969	965
Calcium	ppm	ASTM D5185m	1070	<b>987</b>	1065	1080
Phosphorus	ppm	ASTM D5185m	1150	<b>1006</b>	1076	1105
Zinc	ppm	ASTM D5185m	1270	<b>1216</b>	1238	1293
Sulfur	ppm	ASTM D5185m	2060	<b>3344</b>	3707	3269
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.4</b>	18.0	15.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.6</b>	8.1	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.6</b>	▲ 12.0	12.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0870213 **Received** : 01 Jul 2024  
**Lab Number** : 06225602 **Tested** : 03 Jul 2024  
**Unique Number** : 11103799 **Diagnosed** : 03 Jul 2024 - Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: KV40, PercentFuel )

**AREA TRANSPORTATION AUTHORITY**  
 44 TRANSPORTATION CENTER  
 JOHNSONBURG, PA  
 US 15845  
 Contact: Mike Agosti  
 magosti@rideata.com  
 T: (814)965-1265  
 F:

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)