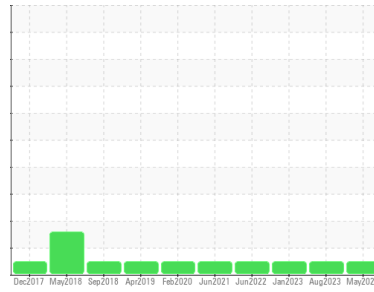


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**SETRA 432U**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>PCA0112161</b>	PCA0102866	PCA0082322
Sample Date	Client Info			<b>28 May 2024</b>	22 Aug 2023	31 Jan 2023
Machine Age	mls Client Info			<b>207515</b>	179712	179712
Oil Age	mls Client Info			<b>14665</b>	13138	14908
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	>5		<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 D5185m	>100	<b>20</b>	19	24
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	1	1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	3
Lead	ppm	ASTM D5185m	>40	<b>2</b>	1	<1
Copper	ppm	ASTM D5185m	>330	<b>3</b>	1	2
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

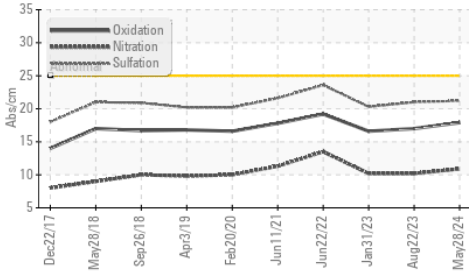
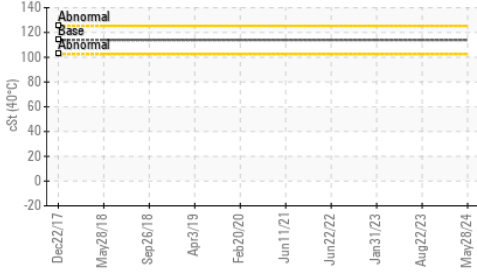
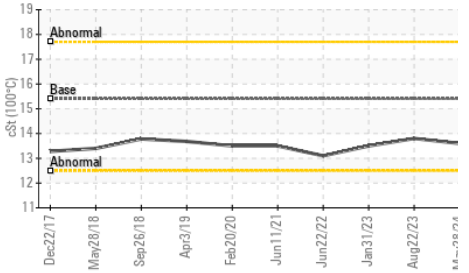
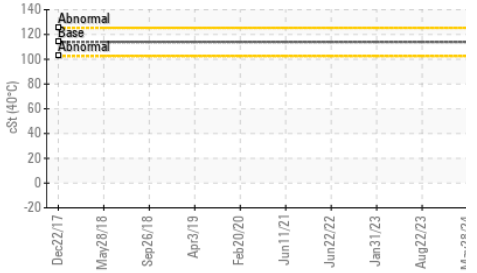
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>6</b>	0	3
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>65</b>	65	57
Manganese	ppm	ASTM D5185m	0	<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>1009</b>	1079	907
Calcium	ppm	ASTM D5185m	1070	<b>1144</b>	1163	1029
Phosphorus	ppm	ASTM D5185m	1150	<b>1116</b>	1087	951
Zinc	ppm	ASTM D5185m	1270	<b>1319</b>	1336	1165
Sulfur	ppm	ASTM D5185m	2060	<b>3556</b>	3721	3359

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>6</b>	5	5
Sodium	ppm	ASTM D5185m		<b>5</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	0	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.9</b>	10.2	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.2</b>	21.0	20.3

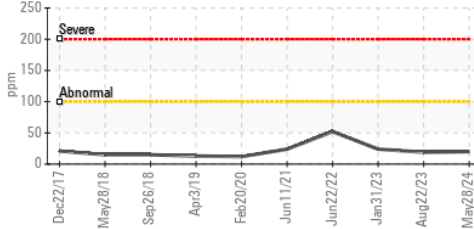
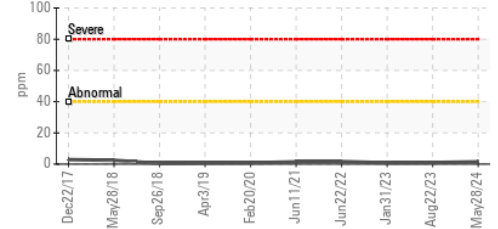
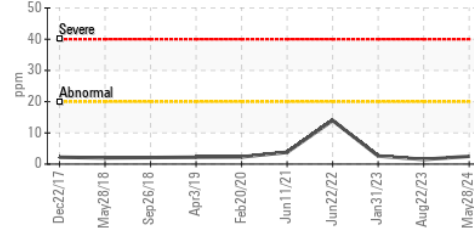
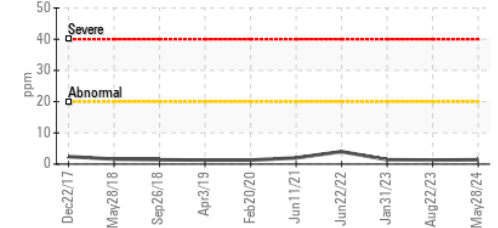
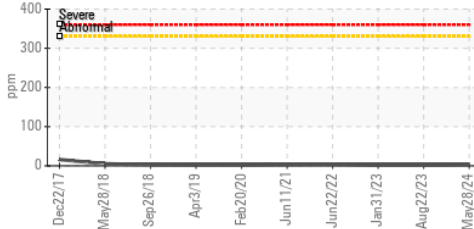
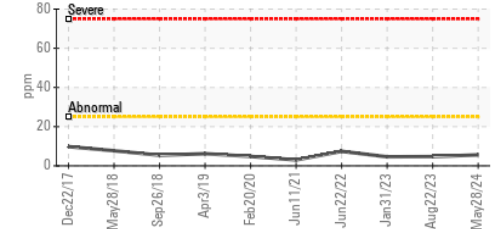
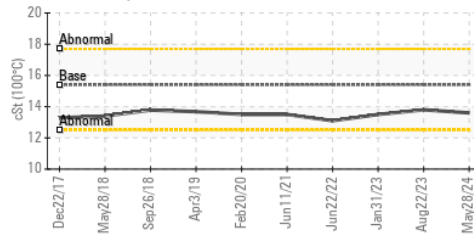
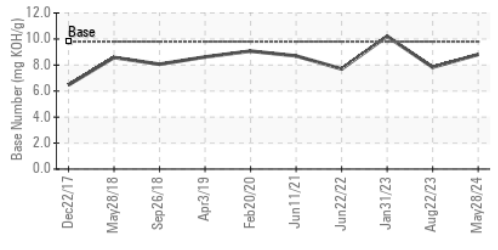
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.9</b>	17.0	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.81</b>	7.83	10.21

# OIL ANALYSIS REPORT

**FT-IR (Direct Trend)**

**Viscosity @ 40°C**

**Viscosity @ 100°C**

**Viscosity @ 40°C**

**Viscosity @ 100°C**


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	13.8

**GRAPHS**
**Iron (ppm)**

**Lead (ppm)**

**Aluminum (ppm)**

**Chromium (ppm)**

**Copper (ppm)**

**Silicon (ppm)**

**Viscosity @ 100°C**

**Base Number**


Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0112161 **Received** : 28 Jun 2024  
**Lab Number** : 06223655 **Tested** : 01 Jul 2024  
**Unique Number** : 11101852 **Diagnosed** : 01 Jul 2024 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: KV40 )

**BROWN BUS COMPANY - UPSTATE TRANSIT**  
 50 VENNERS ROAD  
 AMSTERDAM, NY  
 US 12010  
 Contact: CONNIE WILBUR  
 cwilbur@browncoach.com  
 T: (518)843-4700  
 F: (518)843-3600

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)