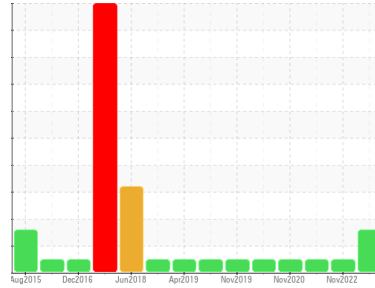


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
MCI 330U

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

Elemental level of silicon (Si) above normal indicating ingress of seal material.

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.

SAMPLE INFORMATION

method	limit/base	current	history1	history2	
Sample Number	Client Info	PCA0095374	PCA0082315	PCA0056185	
Sample Date	Client Info	14 Jul 2023	14 Nov 2022	28 Oct 2021	
Machine Age	mls	Client Info	301520	282256	264550
Oil Age	mls	Client Info	14264	1592	13935
Oil Changed	Client Info	Changed	Changed	Changed	
Sample Status		ABNORMAL	NORMAL	NORMAL	

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	29	11	24
Chromium	ppm ASTM D5185m >20	2	<1	1
Nickel	ppm ASTM D5185m >4	0	<1	0
Titanium	ppm ASTM D5185m	<1	<1	0
Silver	ppm ASTM D5185m >3	0	3	0
Aluminum	ppm ASTM D5185m >20	4	4	3
Lead	ppm ASTM D5185m >40	2	2	3
Copper	ppm ASTM D5185m >330	2	2	2
Tin	ppm ASTM D5185m >15	<1	<1	<1
Antimony	ppm ASTM D5185m	---	---	0
Vanadium	ppm ASTM D5185m	0	<1	0
Cadmium	ppm ASTM D5185m	0	<1	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	20	60	10
Barium	ppm ASTM D5185m 0	0	<1	0
Molybdenum	ppm ASTM D5185m 60	63	55	64
Manganese	ppm ASTM D5185m 0	<1	<1	<1
Magnesium	ppm ASTM D5185m 1010	772	719	1040
Calcium	ppm ASTM D5185m 1070	1290	1199	1167
Phosphorus	ppm ASTM D5185m 1150	764	725	1111
Zinc	ppm ASTM D5185m 1270	997	922	1308
Sulfur	ppm ASTM D5185m 2060	3001	2783	2687

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	▲ 63	21	6
Sodium	ppm ASTM D5185m	24	40	4
Potassium	ppm ASTM D5185m >20	1	5	0

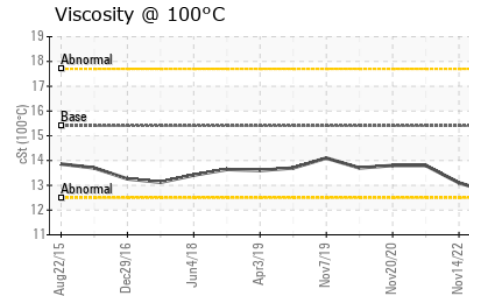
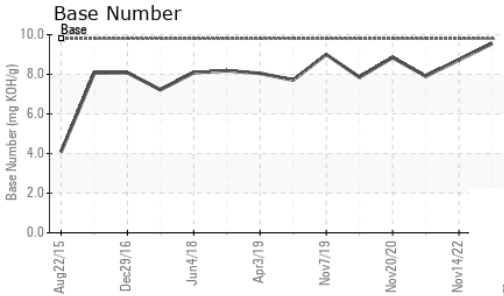
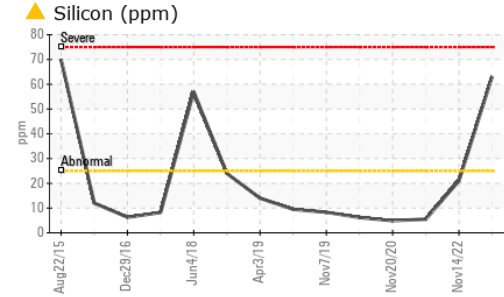
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.4	0.1	0.3
Nitration	Abs/cm *ASTM D7624 >20	10.9	6.4	11.9
Sulfation	Abs/.1mm *ASTM D7415 >30	21.9	20.8	23

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	18.7	15.4	19.1
Base Number (BN)	mg KOH/g ASTM D2896 9.8	9.55	8.72	7.90

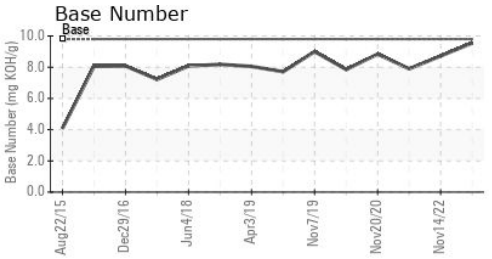
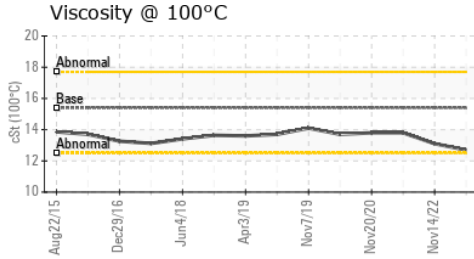
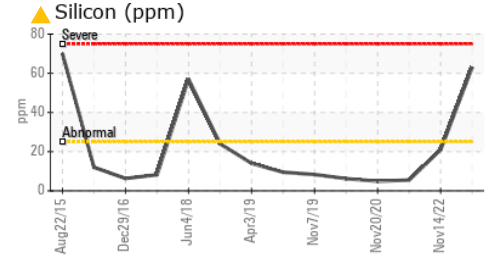
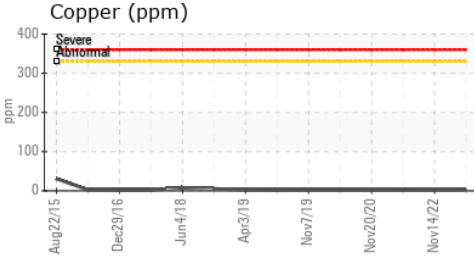
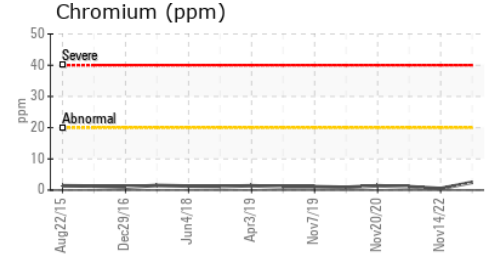
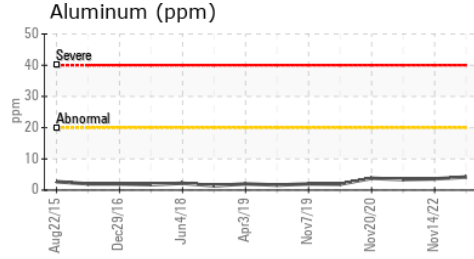
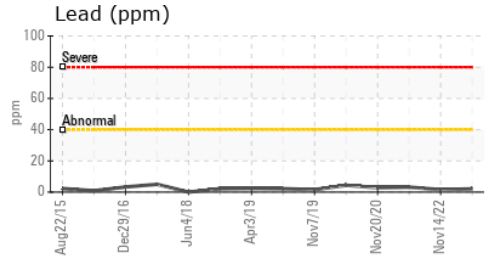
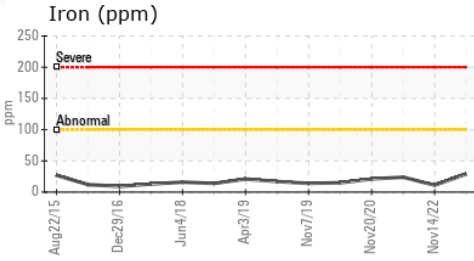
OIL ANALYSIS REPORT



VISUAL	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	12.7	13.1

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0095374
Lab Number : 05927443
Unique Number : 10607390
Test Package : MOB 2

BROWN BUS COMPANY - UPSTATE TRANSIT
 50 VENNOR 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)