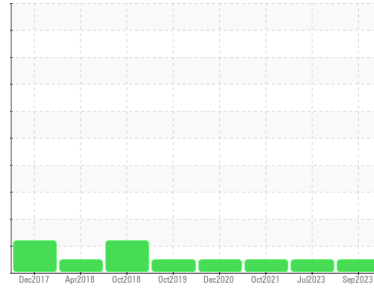




Machine Id
FREIGHTLINER 484147
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (20 QTS)



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	PCA0105337	PCA0095745	PCA0057154	
Sample Date	Client Info	25 Sep 2023	13 Jul 2023	05 Oct 2021	
Machine Age	mls	Client Info	362378	355290	25956
Oil Age	mls	Client Info	362378	355290	25956
Oil Changed	Client Info	Changed	Changed	Changed	
Sample Status		NORMAL	NORMAL	NORMAL	

CONTAMINATION method limit/base current history1 history2

Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS method limit/base current history1 history2

Iron	ppm	ASTM D5185m	>90	24	60	97
Chromium	ppm	ASTM D5185m	>20	<1	2	4
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	4	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	4	9
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	<1	2	6
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185m	2	2	3	8
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	61	57	59
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	950	1005	913	950
Calcium	ppm	ASTM D5185m	1050	1227	1229	1271
Phosphorus	ppm	ASTM D5185m	995	1079	989	953
Zinc	ppm	ASTM D5185m	1180	1327	1244	1169
Sulfur	ppm	ASTM D5185m	2600	3105	3429	3850

CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185m	>25	3	6	8
Sodium	ppm	ASTM D5185m		3	4	6
Potassium	ppm	ASTM D5185m	>20	2	2	7

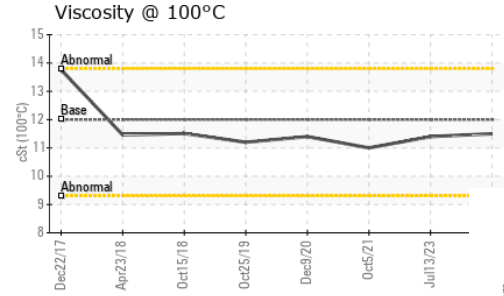
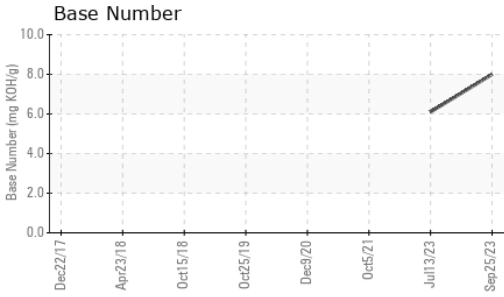
INFRA-RED method limit/base current history1 history2

Soot %	%	*ASTM D7844	>6	0.7	1.2	1.1
Nitration	Abs/cm	*ASTM D7624	>20	10.1	13.6	14.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	25.2	26.7

FLUID DEGRADATION method limit/base current history1 history2

Oxidation	Abs/.1mm	*ASTM D7414	>25	17.0	22.7	24.3
Base Number (BN)	mg KOH/g	ASTM D2896		8.0	6.1	---

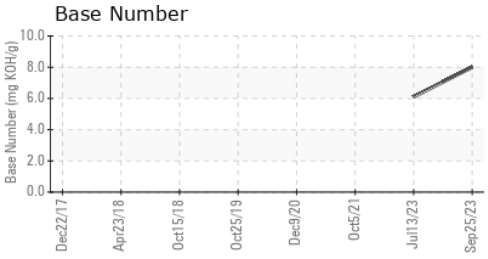
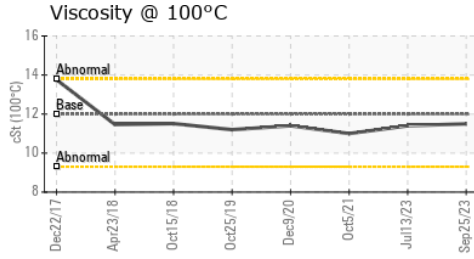
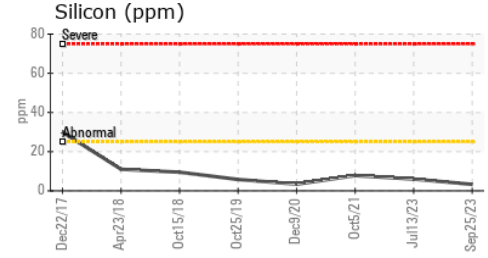
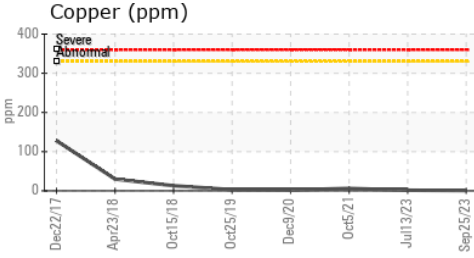
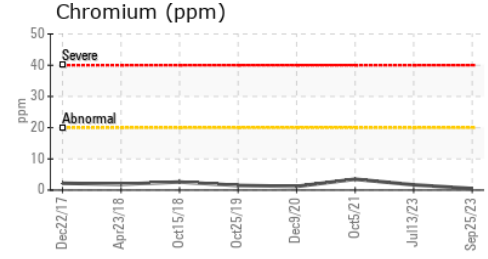
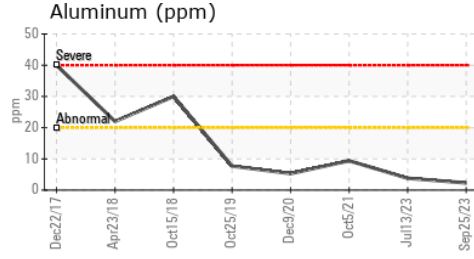
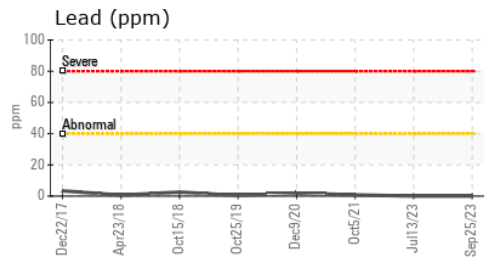
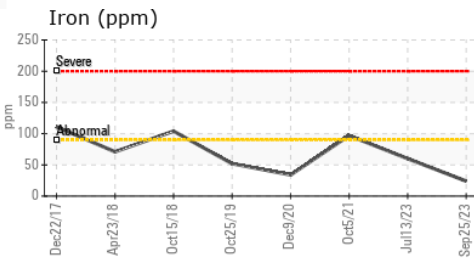
OIL ANALYSIS REPORT



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	12.00	11.5	11.4

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0105337 **Received** : 04 Oct 2023
Lab Number : 05968767 **Diagnosed** : 04 Oct 2023
Unique Number : 10675318 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

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 2196 BENNETT ROAD
 PHILADELPHIA, PA
 US 19116
 Contact: ROSTY VITER
 rviter@millertransgroup.com
 T: (215)552-9832
 F: (215)552-9892

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)