

Machine Id
FREIGHTLINER 308815

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 10W30 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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	PCA0098986	PCA0082211	PCA0064709	
Sample Date	Client Info	06 Aug 2023	21 Nov 2022	04 Feb 2022	
Machine Age	mls	Client Info	54247	39781	29509
Oil Age	mls	Client Info	0	10272	20277
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	>200	59	71	90
Chromium	ppm	ASTM D5185m	>20	2	2	3
Nickel	ppm	ASTM D5185m	>2	<1	0	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	21	19	31
Lead	ppm	ASTM D5185m	>30	0	0	<1
Copper	ppm	ASTM D5185m	>30	3	4	14
Tin	ppm	ASTM D5185m	>15	1	1	3
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185m	2	8	6	10
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	50	68	64	57
Manganese	ppm	ASTM D5185m	0	<1	<1	2
Magnesium	ppm	ASTM D5185m	950	974	945	1053
Calcium	ppm	ASTM D5185m	1050	1229	1149	1307
Phosphorus	ppm	ASTM D5185m	995	1088	1055	1091
Zinc	ppm	ASTM D5185m	1180	1281	1264	1313
Sulfur	ppm	ASTM D5185m	2600	3720	3727	2962

CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185m	>30	4	5	6
Sodium	ppm	ASTM D5185m		3	2	3
Potassium	ppm	ASTM D5185m	>20	15	13	34

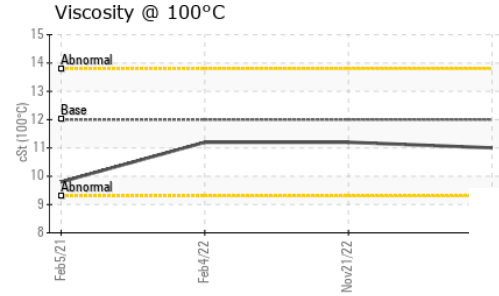
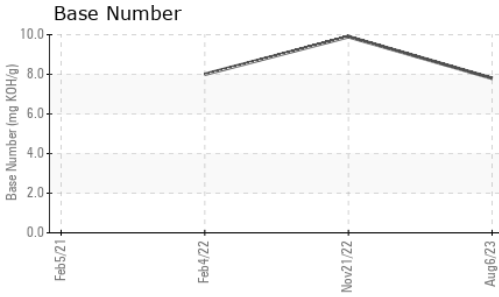
INFRA-RED method limit/base current history1 history2

Soot %	%	*ASTM D7844	>3	0.6	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	10.0	10.0	12.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	20.8	22.5

FLUID DEGRADATION method limit/base current history1 history2

Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	16.4	19.0
Base Number (BN)	mg KOH/g	ASTM D2896		7.8	9.9	8.0

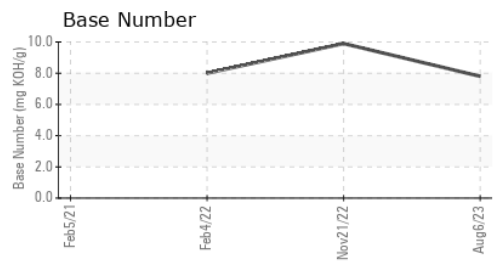
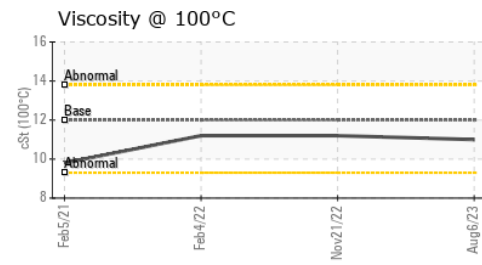
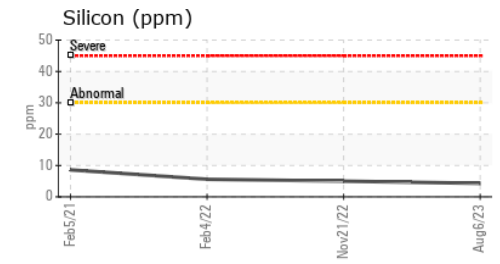
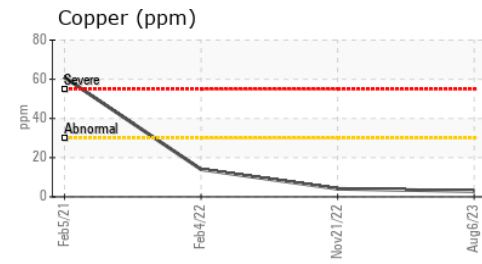
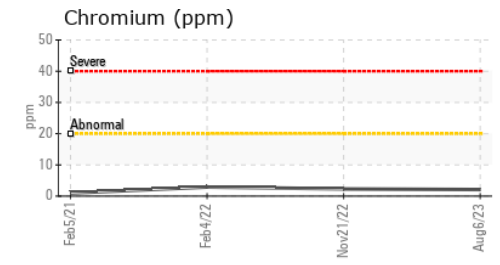
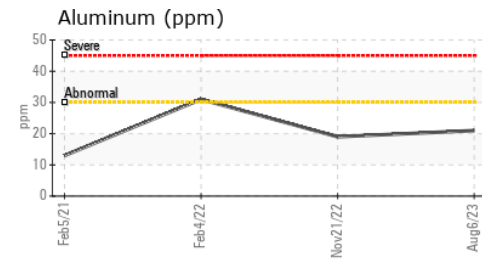
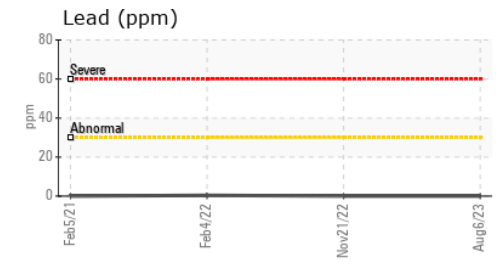
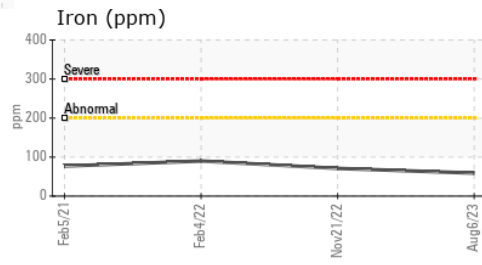
OIL ANALYSIS REPORT



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	11.0	11.2	11.2

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0098986 **Received** : 05 Sep 2023
Lab Number : **05941902** **Diagnosed** : 06 Sep 2023
Unique Number : 10632514 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

MILLER TRUCK LEASING #112
 1504 MAINLINE DR
 CINNAMINSON, NJ
 US 08077
 Contact: MIKE BOYER
 mboyer@millertransgroup.com
 T: (856)662-4264
 F: (856)663-4898

Certificate L2367
 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)