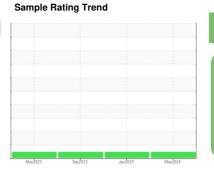


OIL ANALYSIS REPORT

(AU395U) Supermarket - Tractor **FREIGHTLINER 107A1825**

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

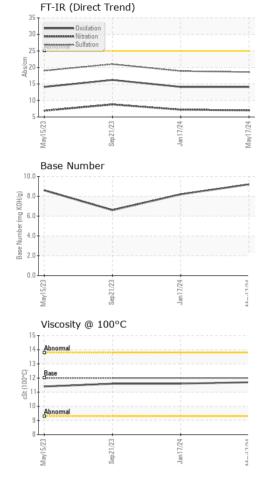
Fluid Condition

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

Client Info PCA0124130 PCA01111006 PCA0104097 Sample Date Client Info IT May 2024 17 Jan 2024 21 Sep 2023 23 Dil Age mls Client Info It May 2024 17 Jan 2024 21 Sep 2023 23 Dil Age mls Client Info It May 2024 17 Jan 2024 21 Sep 2023 23 Dil Age mls Client Info It MorRMAL NORMAL NORMA	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Client Info						•	
Machine Age mls Client Info 233103 221492 209772							
Oil Age mls Client Info 11611 11720 24295 Oil Changed Client Info Changed Call Cal		mle			•		
Client Info Changed Changed NORMAL NORMAL NORMAL NORMAL	3-						
CONTAMINATION		11113			-		
Fuel	-		Oliciti iiilo			Ü	Ü
Fuel	·	201	us a tla a al	lineit/lenene			
Water Glycol WC Method WC Method >0.2 NEG NEG NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >80 8 10 18 Chromium ppm ASTM D5185m >5 <1		אוע					
WEAR METALS							
WEAR METALS				>0.2	-		
Irron			WC Method		NEG	NEG	NEG
Chromium	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>80	8		
Titanium	Chromium	ppm	ASTM D5185m	>5	<1	<1	1
Silver	Nickel	ppm	ASTM D5185m	>2	-	0	
Aluminum	Titanium	ppm	ASTM D5185m		<1	<1	0
Lead	Silver	ppm	ASTM D5185m	>3	0	0	0
Copper ppm ASTM D5185m >150 3 6 11 Tin ppm ASTM D5185m >5 <1	Aluminum	ppm	ASTM D5185m	>30	3	4	6
Tin	Lead	ppm	ASTM D5185m	>30	0	0	0
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 3 24 5 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 61 65 69 Manganese ppm ASTM D5185m 0 0 <1 <1 Magnesium ppm ASTM D5185m 950 939 895 931 Calcium ppm ASTM D5185m 950 927 1055 980 Zinc ppm ASTM D5185m 1050 1086 1170 1106 Phosphorus ppm ASTM D5185m 290 927 1055 980 Zinc ppm ASTM D5185m 2600 3269 3055 <t< td=""><td>Copper</td><td>ppm</td><td>ASTM D5185m</td><td>>150</td><th>3</th><td>6</td><td>11</td></t<>	Copper	ppm	ASTM D5185m	>150	3	6	11
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 3 24 5 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 61 65 69 Manganese ppm ASTM D5185m 0 0 <1	Tin	ppm	ASTM D5185m	>5	<1	<1	<1
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	0	0
Boron ppm ASTM D5185m 2 3 24 5	Cadmium	ppm	ASTM D5185m		0	0	0
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 61 65 69 Manganese ppm ASTM D5185m 0 0 <1 <1 Magnesium ppm ASTM D5185m 950 939 895 931 Calcium ppm ASTM D5185m 1050 1086 1170 1106 Phosphorus ppm ASTM D5185m 1050 1086 1170 1106 Phosphorus ppm ASTM D5185m 995 927 1055 980 Zinc ppm ASTM D5185m 2600 3269 3055 2872 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m >20 2 0 4 INFRA-RED method limit/base	Boron	ppm	ASTM D5185m	2	3	24	5
Manganese ppm ASTM D5185m 0 0 <1 <1 Magnesium ppm ASTM D5185m 950 939 895 931 Calcium ppm ASTM D5185m 1050 1086 1170 1106 Phosphorus ppm ASTM D5185m 995 927 1055 980 Zinc ppm ASTM D5185m 995 927 1055 980 Zinc ppm ASTM D5185m 2600 3269 3055 2872 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m >20 2 1 1 Potassium ppm ASTM D5185m >20 2 0 4 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3	Barium	ppm	ASTM D5185m	0	0	0	0
Magnesium ppm ASTM D5185m 950 939 895 931 Calcium ppm ASTM D5185m 1050 1086 1170 1106 Phosphorus ppm ASTM D5185m 995 927 1055 980 Zinc ppm ASTM D5185m 1180 1231 1222 1231 Sulfur ppm ASTM D5185m 2600 3269 3055 2872 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m >20 2 1 Potassium ppm ASTM D5185m >20 2 0 4 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.6 1 Nitration Abs/cm *ASTM D7415 >30<	Molybdenum	ppm	ASTM D5185m	50	61	65	69
Calcium ppm ASTM D5185m 1050 1086 1170 1106 Phosphorus ppm ASTM D5185m 995 927 1055 980 Zinc ppm ASTM D5185m 1180 1231 1222 1231 Sulfur ppm ASTM D5185m 2600 3269 3055 2872 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m >20 2 1 Potassium ppm ASTM D5185m >20 2 0 4 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.6 1 Nitration Abs/.1mm *ASTM D7415 >30 18.6 18.9 21.0 FLUID DEGRADATION *ASTM D7414	Manganese	ppm	ASTM D5185m	0	0	<1	<1
Phosphorus ppm ASTM D5185m 995 927 1055 980 Zinc ppm ASTM D5185m 1180 1231 1222 1231 Sulfur ppm ASTM D5185m 2600 3269 3055 2872 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m >20 2 1 Potassium ppm ASTM D5185m >20 2 0 4 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.6 1 Nitration Abs/cm *ASTM D7624 >20 7.0 7.2 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.9 21.0 FLUID DEGRADATION method limi	Magnesium	ppm	ASTM D5185m	950	939	895	931
Zinc ppm ASTM D5185m 1180 1231 1222 1231 Sulfur ppm ASTM D5185m 2600 3269 3055 2872 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m 0 2 1 Potassium ppm ASTM D5185m >20 2 0 4 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.6 1 Nitration Abs/cm *ASTM D7624 >20 7.0 7.2 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.9 21.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414	Calcium	ppm	ASTM D5185m	1050	1086	1170	1106
Sulfur ppm ASTM D5185m 2600 3269 3055 2872 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m 0 2 1 Potassium ppm ASTM D5185m >20 2 0 4 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.6 1 Nitration Abs/cm *ASTM D7624 >20 7.0 7.2 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.9 21.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.1 14.1 14.1 16.2	Phosphorus	ppm	ASTM D5185m	995	927	1055	980
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m 0 2 1 Potassium ppm ASTM D5185m >20 2 0 4 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.6 1 Nitration Abs/cm *ASTM D7624 >20 7.0 7.2 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.9 21.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.1 14.1 14.1 16.2	Zinc	ppm	ASTM D5185m	1180	1231	1222	1231
Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m 0 2 1 Potassium ppm ASTM D5185m >20 2 0 4 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.6 1 Nitration Abs/cm *ASTM D7624 >20 7.0 7.2 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.9 21.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.1 14.1 16.2	Sulfur	ppm	ASTM D5185m	2600	3269	3055	2872
Sodium ppm ASTM D5185m 0 2 1 Potassium ppm ASTM D5185m >20 2 0 4 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.6 1 Nitration Abs/cm *ASTM D7624 >20 7.0 7.2 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.9 21.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.1 14.1 16.2	CONTAMINANT	S	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 2 0 4 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.6 1 Nitration Abs/cm *ASTM D7624 >20 7.0 7.2 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.9 21.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.1 14.1 16.2	Silicon	ppm	ASTM D5185m	>20	4	4	5
INFRA-RED	Sodium	ppm	ASTM D5185m		0	2	1
Soot % % *ASTM D7844 >3 0.5 0.6 1 Nitration Abs/cm *ASTM D7624 >20 7.0 7.2 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.9 21.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.1 14.1 16.2	Potassium	ppm	ASTM D5185m	>20	2	0	4
Nitration Abs/cm *ASTM D7624 >20 7.0 7.2 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.9 21.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.1 14.1 16.2	INFRA-RED		method	limit/base	current	history1	history2
Nitration Abs/cm *ASTM D7624 >20 7.0 7.2 8.8 Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.9 21.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.1 14.1 16.2	Soot %	%	*ASTM D7844	>3	0.5	0.6	1
Sulfation Abs/.1mm *ASTM D7415 >30 18.6 18.9 21.0 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.1 14.1 16.2							
Oxidation							
	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
			*ASTM D7414	>25	14.1		16.2
		mg KOH/g	ASTM D2896	- 20	9.2	8.2	6.6



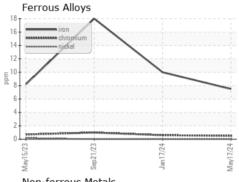
OIL ANALYSIS REPORT



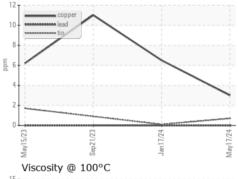
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

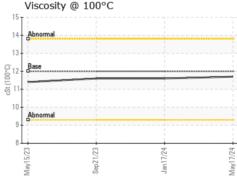
FLUID PROPE	ERITES	method	limit/base		history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.7	11.6	11.6

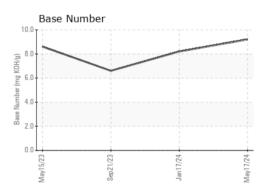
GRAPHS















Certificate 12367

Laboratory Sample No.

Test Package : FLEET

: PCA0124130 Lab Number : 06209836 Unique Number : 11082700

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Received : 14 Jun 2024 **Tested** : 15 Jun 2024 Diagnosed

: 15 Jun 2024 - Wes Davis

Transervice - Shop 1071 - Supermarket-Dayton 60 A Tower Road Dayton, NJ US 08810

Contact: Brian Quinn bquinn@transervice.com

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)

T:

F: