

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

(AY398B) Supermarket - Tractor Machine Id FREIGHTLINER 107A1813

Component Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Fluic

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.

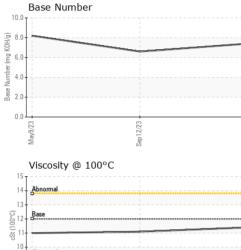
			May2023 Sep2023 Jan2024					
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2		
Sample Number		Client Info		PCA0111005	PCA0104088	PCA0097061		
Sample Date		Client Info		16 Jan 2024	12 Sep 2023	09 May 2023		
Machine Age	mls	Client Info		62876	45061	29873		
Oil Age	mls	Client Info		17815	15188	16422		
Oil Changed		Client Info		Changed	Changed	Not Changd		
Sample Status				NORMAL	NORMAL	NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2		
Fuel		WC Method	>5	<1.0	<1.0	<1.0		
Water		WC Method	>0.2	NEG	NEG	NEG		
Glycol		WC Method		NEG	NEG	NEG		
WEAR METAL	S	method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>80	39	60	32		
Chromium	ppm	ASTM D5185m	>5	2	3	2		
Nickel	ppm	ASTM D5185m	>2	<1	2	1		
Titanium	ppm	ASTM D5185m		<1	0	0		
Silver	ppm	ASTM D5185m	>3	0	<1	<1		
Aluminum	ppm	ASTM D5185m	>30	14	29	20		
Lead	ppm	ASTM D5185m	>30	<1	0	<1		
Copper	ppm	ASTM D5185m	>150	136	257	404		
Tin	ppm	ASTM D5185m	>5	2	8	8		
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	17	14	22		
Barium	ppm	ASTM D5185m	0	0	0	0		
Molybdenum	ppm	ASTM D5185m	50	66	65	62		
			0		0	0		
Manganese	ppm	ASTM D5185m	0	1	3	2		
•	ppm ppm	ASTM D5185m ASTM D5185m	0 950	1 879	3 891	2 884		
Magnesium								
Magnesium Calcium	ppm	ASTM D5185m	950	879	891	884		
Magnesium Calcium Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m	950 1050	879 1238	891 1446	884 1360		
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995	879 1238 991	891 1446 955	884 1360 972		
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180	879 1238 991 1195	891 1446 955 1225	884 1360 972 1217		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600	879 1238 991 1195 2426	891 1446 955 1225 2618	884 1360 972 1217 3163		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	950 1050 995 1180 2600 limit/base	879 1238 991 1195 2426 current	891 1446 955 1225 2618 history1	884 1360 972 1217 3163 history2		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	950 1050 995 1180 2600 limit/base	879 1238 991 1195 2426 current 5	891 1446 955 1225 2618 history1 8	884 1360 972 1217 3163 history2 6		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >20	879 1238 991 1195 2426 current 5 3	891 1446 955 1225 2618 history1 8 4	884 1360 972 1217 3163 history2 6 3		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >20	879 1238 991 1195 2426 current 5 3 3 34	891 1446 955 1225 2618 history1 8 4 85	884 1360 972 1217 3163 history2 6 3 49		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >20 limit/base	879 1238 991 1195 2426 current 5 3 34 current	891 1446 955 1225 2618 history1 8 4 85 history1	884 1360 972 1217 3163 history2 6 3 49 history2		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	950 1050 995 1180 2600 limit/base >20 limit/base >3	879 1238 991 1195 2426 current 5 3 34 current 1.1	891 1446 955 1225 2618 history1 8 4 85 history1 1.5	884 1360 972 1217 3163 history2 6 3 49 history2 0.8		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7624	950 1050 995 1180 2600 limit/base >20 limit/base >20 limit/base	879 1238 991 1195 2426 <i>current</i> 5 3 34 <i>current</i> 1.1 8.6	891 1446 955 1225 2618 history1 8 4 85 history1 1.5 10.5	884 1360 972 1217 3163 history2 6 3 49 history2 0.8 8.7		
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624 *ASTM D7415	950 1050 995 1180 2600 imit/base >20 >20 imit/base >3 >20 s30 >30	879 1238 991 1195 2426 <u>current</u> 5 3 34 <u>current</u> 1.1 8.6 21.3 <u>current</u>	891 1446 955 1225 2618 history1 8 4 85 history1 1.5 10.5 23.4 history1	884 1360 972 1217 3163 history2 6 3 49 history2 0.8 8.7 20.9 history2		
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624 *ASTM D7415	950 1050 995 1180 2600 limit/base >20 limit/base >3 >20 >3 >20	879 1238 991 1195 2426 <u>current</u> 5 3 34 <u>current</u> 1.1 8.6 21.3	891 1446 955 1225 2618 history1 8 4 85 history1 1.5 10.5 23.4	884 1360 972 1217 3163 history2 6 3 49 history2 0.8 8.7 20.9		



Abnormal

8. May9/23

OIL ANALYSIS REPORT



Laboratory Sample No. Lab Numbe Unique Numb Test Packag		: WearCheck USA : PCA0111005 : 06072510 : 10849187 : FLEET		d : 29 . ed : 30 .		2024 60 A Tower Ro 2024 Dayton,			
		Abnormal 8 ECC6 Few	Sep 12/23		agunny age 2.0 1.0 + 72/91 Lef		Sep12/23		
	1.200 U	14 Abnormal			8.0 (6,0 (1)(1)(0) (1)(1)(0)(1)(0)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)(1)				
		Viscosity @ 100	Č Sep12/23		Jan 16/24	Base Number			
			23		24				
	Ed	350							
		Non-ferrous Met	als						
		10 0 20 20 20 20 20 20 20 20 20 20 20 20	Sep 12/23		Janî 6/24				
	SHARE	§ 30							
Sep12/23		Ferrous Alloys	\frown						
		Visc @ 100°C GRAPHS	cSt	ASTM D445	12.00	11.4	11.1	11.0	
		FLUID PROP		method	limit/base	current	history1	history2	
		Emulsified Water Free Water	scalar	*Visual *Visual	>0.2	NEG	NEG	NEG	
Sep12/23 -	Jan 16/24 +	Appearance Odor	scalar	*Visual *Visual	NORML	NORML	NORML	NORML	
		Debris Sand/Dirt	scalar scalar	*Visual *Visual	NONE NONE	NONE	NONE NONE	NONE NONE	
	Precipitate	scalar scalar	*Visual *Visual	NONE	NONE	NONE	NONE		
		White Metal Yellow Metal	scalar scalar	*Visual *Visual	NONE	NONE NONE	NONE NONE	NONE NONE	