

# **OIL ANALYSIS REPORT**

Sample Rating Trend

## Area (AU764S) Supermarket - Tractor FREIGHTLINER 107A8822

Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (11 GAL)

### 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.

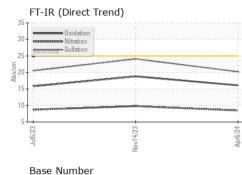
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0116956	PCA0110999	PCA0099866
Sample Date		Client Info		06 Apr 2024	14 Nov 2023	05 Jul 2023
Machine Age	mls	Client Info		260747	238713	219453
Oil Age	mls	Client Info		22034	19260	20358
Oil Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ON	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 METALS	6	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	18	31	14
Chromium	ppm	ASTM D5185m	>5	1	2	1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>30	14	21	13
Lead	ppm	ASTM D5185m	>30	0	0	0
Copper	ppm	ASTM D5185m	>150	3	7	4
Tin	ppm	ASTM D5185m	>5	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	6	2	5
Barium	ppm	ASTM D5185m	0	0	0	2
	1-1-					
Molybdenum	ppm	ASTM D5185m	50	71	63	68
Molybdenum Manganese		ASTM D5185m ASTM D5185m	50 0	71 <1	63 1	
-	ppm					68
Manganese	ppm ppm	ASTM D5185m	0	<1	1	68 <1
Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m	0 950	<1 1019	1 901 1069 945	68 <1 889
Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050	<1 1019 1205	1 901 1069	68 <1 889 1150
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995	<1 1019 1205 1142	1 901 1069 945	68 <1 889 1150 997
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180	<1 1019 1205 1142 1358	1 901 1069 945 1232	68 <1 889 1150 997 1238
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600	<1 1019 1205 1142 1358 3492	1 901 1069 945 1232 2215	68 <1 889 1150 997 1238 2897
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base	<1 1019 1205 1142 1358 3492 current	1 901 1069 945 1232 2215 history1	68 <1 889 1150 997 1238 2897 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN <sup>T</sup> Silicon	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	0 950 1050 995 1180 2600 limit/base	<1 1019 1205 1142 1358 3492 current 5	1 901 1069 945 1232 2215 history1 6	68 <1 889 1150 997 1238 2897 history2 4
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 limit/base >20	<1 1019 1205 1142 1358 3492 current 5 1	1 901 1069 945 1232 2215 history1 6 3	68 <1 889 1150 997 1238 2897 history2 4 <1
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 <b>limit/base</b> >20	<1 1019 1205 1142 1358 3492 current 5 1 1 14	1 901 1069 945 1232 2215 history1 6 3 30	68 <1 889 1150 997 1238 2897 history2 4 <1 15
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm <b>FS</b> ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 <b>limit/base</b> >20 <b>limit/base</b>	<1 1019 1205 1142 1358 3492 current 5 1 1 14 current	1 901 1069 945 1232 2215 history1 6 3 30 history1	68 <1 889 1150 997 1238 2897 history2 4 <1 15 history2
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 <b>limit/base</b> >20 <b>limit/base</b> >3 >20	<1 1019 1205 1142 1358 3492 current 5 1 1 14 current 0.9	1 901 1069 945 1232 2215 history1 6 3 30 history1 1.5	68 <1 889 1150 997 1238 2897 history2 4 <1 15 history2 0.8
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN <sup>T</sup> Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm t ppm ppm pp	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 950 1050 995 1180 2600 <b>limit/base</b> >20 <b>limit/base</b> >3 >20	<1 1019 1205 1142 1358 3492 current 5 1 1 14 current 0.9 8.5	1 901 1069 945 1232 2215 history1 6 3 30 history1 1.5 9.8	68 <1 889 1150 997 1238 2897 history2 4 <1 15 history2 0.8 8.7
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm t ppm ppm pp	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7824 *ASTM D7624	0 950 1050 995 1180 2600 <b>imit/base</b> >20 <b>imit/base</b> >3 >20 >30	<1 1019 1205 1142 1358 3492 current 5 1 1 14 current 0.9 8.5 20.2	1 901 1069 945 1232 2215 history1 6 3 30 history1 1.5 9.8 24.1	68 <1 889 1150 997 1238 2897 history2 4 <1 15 history2 0.8 8.7 20.5
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	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	0 950 1050 995 1180 2600 imit/base >20 20 imit/base >3 >20 >30 >30	<1 1019 1205 1142 1358 3492 current 5 1 1 14 current 0.9 8.5 20.2 current	1 901 1069 945 1232 2215 history1 6 3 30 history1 1.5 9.8 24.1 history1	68 <1 889 1150 997 1238 2897 history2 4 <1 15 history2 0.8 8.7 20.5 history2

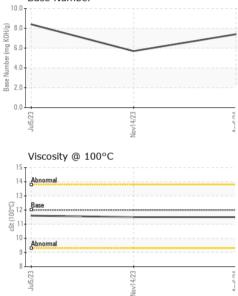
NORMAL



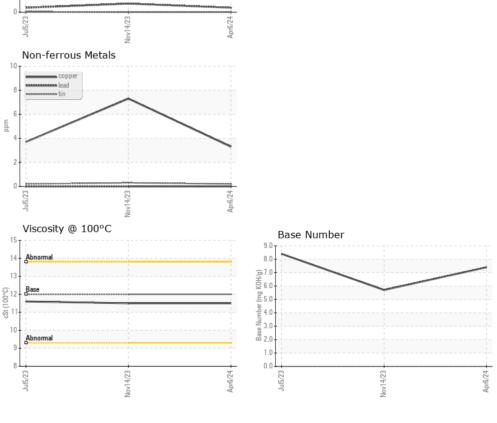
# OIL ANALYSIS REPORT

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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	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.5	11.5	11.6
GRAPHS						
Ferrous Alloys						
iron i						
80 - chromium	$\wedge$					
25-						
20						
5						



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Transervice - Shop 1071 - Supermarket-Dayton : PCA0116956 Sample No. Received : 16 Apr 2024 60 A Tower Road Lab Number : 06150110 Tested : 17 Apr 2024 Dayton, NJ US 08810 Unique Number : 10980188 Diagnosed : 17 Apr 2024 - Wes Davis Test Package : FLEET Contact: Brian Quinn Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. bquinn@transervice.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

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Submitted By: Brian Quinn Page 2 of 2