

OIL ANALYSIS REPORT





Component Diesel Engine Fluid PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

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 INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0101959		
Sample Date		Client Info		22 Mar 2024		
Machine Age	mls	Client Info		146462		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	22		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	<1		
Titanium	ppm	ASTM D5185m		2		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	5		
Lead	ppm	ASTM D5185m	>40	<1		
Copper	ppm	ASTM D5185m	>330	3		
Tin	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		<1		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	5		
Barium	ppm	ASTM D5185m	0	0		
Molybdenum	ppm	ASTM D5185m	50	60		
Manganese	ppm	ASTM D5185m	0	<1		
Magnesium	nnm					
	ppm	ASTM D5185m	950	1019		
Calcium	ppm	ASTM D5185m ASTM D5185m	950 1050			
Calcium Phosphorus				1019		
	ppm	ASTM D5185m	1050	1019 1293		
Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m	1050 995	1019 1293 1127		
Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	1050 995 1180	1019 1293 1127 1408		
Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1050 995 1180 2600 limit/base	1019 1293 1127 1408 3786		
Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	1050 995 1180 2600 limit/base	1019 1293 1127 1408 3786 current	 history1	 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm JTS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	1050 995 1180 2600 limit/base >25	1019 1293 1127 1408 3786 current 5	 history1	 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm VTS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1050 995 1180 2600 limit/base >25	1019 1293 1127 1408 3786 current 5 1	 history1 	 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm VTS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1050 995 1180 2600 <i>limit/base</i> >25 >20	1019 1293 1127 1408 3786 <u>current</u> 5 1 3	 history1 	 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm yTS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1050 995 1180 2600 limit/base >25 >20	1019 1293 1127 1408 3786 current 5 1 3 current	 history1 history1	 history2 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm yTTS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1050 995 1180 2600 imit/base >25 >20 imit/base >3	1019 1293 1127 1408 3786 current 5 1 3 current 0.4	 history1 history1 	 history2 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm yTTS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	1050 995 1180 2600 <i>limit/base</i> >25 >20 <i>limit/base</i> >3 >20	1019 1293 1127 1408 3786 <u>current</u> 5 1 3 <u>current</u> 0.4 8.7	 history1 history1 	 history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINAN Solicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm yTTS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7844	1050 995 1180 2600 limit/base >25 >20 limit/base >3 >20 >30	1019 1293 1127 1408 3786 current 5 1 3 current 0.4 8.7 19.5 current	 history1 history1 	 history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRA	ppm ppm ppm ppm JTS ppm ppm ppm ppm % Abs/cm Abs/1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7415	1050 995 1180 2600 imit/base >25 >20 imit/base >3 >20 >30	1019 1293 1127 1408 3786 current 5 1 3 current 0.4 8.7 19.5	 history1 history1 history1	 history2 history2 history2 history2



3

31

2!

/ps/cu

10

8.0

(b/H0J Bu)

age 2.0

0.0

15

14

13 cSt (100°C) Ba

Abnorma

Mar22/24

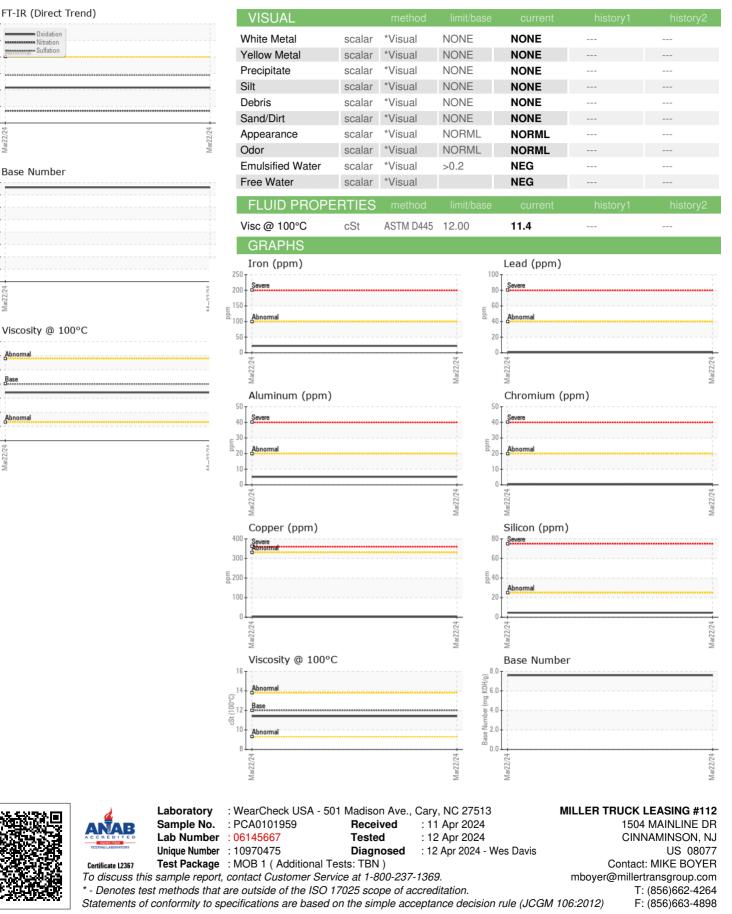
4.0 unper 4.0 Mar22/24

Base Number

Oxidation

Sulfatio

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Contact/Location: MIKE BOYER - MILPEN