

# **OIL ANALYSIS REPORT**







Machine Id 638664

#### 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

Metal levels are typical for a new component breaking in.

### Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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.

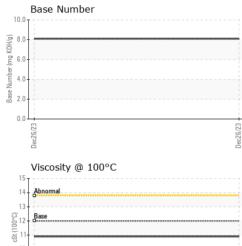
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0097339		
Sample Date		Client Info		26 Dec 2023		
Machine Age	mls	Client Info		45242		
Oil Age	mls	Client Info		12951		
Oil Changed		Client Info		Not Changd		
Sample Status				NORMAL		
CONTAMINAT	ION	method	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	37		
Chromium	ppm	ASTM D5185m	>20	2		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	1		
Aluminum	ppm	ASTM D5185m	>20	53		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	165		
Tin	ppm	ASTM D5185m	>15	1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	9		
Barium	ppm	ASTM D5185m	0	26		
Molybdenum	ppm	ASTM D5185m	50	56		
Manganese	ppm	ASTM D5185m	0	1		
Magnesium	ppm	ASTM D5185m	950	763		
Calcium				100		
	ppm	ASTM D5185m	1050	1197		
Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m	1050 995			
Phosphorus Zinc				1197		
	ppm	ASTM D5185m	995	1197 971		
Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m	995 1180	1197 971 1082		
Zinc Sulfur CONTAMINAN	ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m	995 1180 2600	1197 971 1082 2867		  
Zinc Sulfur	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m method	995 1180 2600 limit/base	1197 971 1082 2867 current		   history2
Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	995 1180 2600 limit/base	1197 971 1082 2867 current 6	   history1	   history2
Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	995 1180 2600 limit/base >25	1197 971 1082 2867 current 6 0	   history1 	  history2 
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	995 1180 2600 <i>limit/base</i> >25 >20	1197 971 1082 2867 current 6 0 128	  history1  	  history2 
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m	995 1180 2600 limit/base >25 >20 limit/base	1197 971 1082 2867 current 6 0 128 current	  history1   history1	  history2   history2
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844	995 1180 2600 imit/base >25 >20 imit/base >3	1197 971 1082 2867 current 6 0 128 current 0.5	  history1   history1 	  history2   history2
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm TS ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7845	995 1180 2600 imit/base >25 >20 imit/base >3 >20	1197 971 1082 2867 current 6 0 128 current 0.5 8.0	  history1   history1  history1	  history2   history2  history2
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAD	ppm ppm TS ppm ppm ppm ppm % Abs/cm Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	995 1180 2600 imit/base >25 >20 imit/base >3 >20 >30 imit/base	1197 971 1082 2867 current 6 0 128 current 0.5 8.0 20.6 current	  history1   history1  	  history2   history2  history2
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm TS ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7845	995 1180 2600 imit/base >25 >20 imit/base >3 >20 >3 >20	1197 971 1082 2867 current 6 0 128 current 0.5 8.0 20.6	  history1   history1   history1	  history2  history2  history2   history2

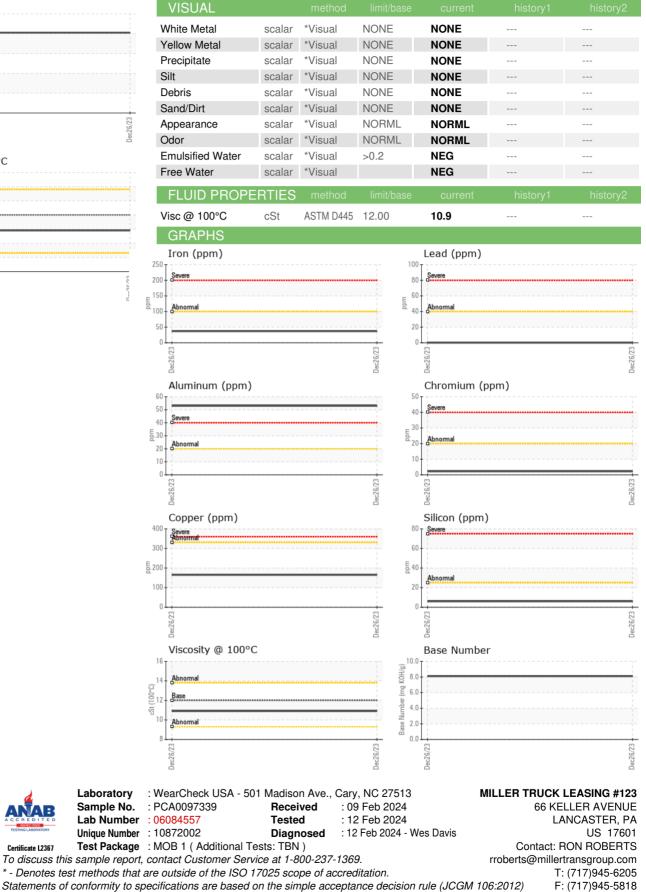


Abnorma

Dec26/23

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Certificate L2367

Contact/Location: RON ROBERTS - MILLAN