

OIL ANALYSIS REPORT

Sample Rating Trend





Component Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (--- QTS

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

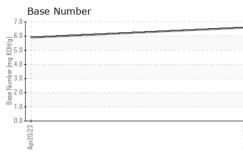
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

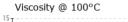
TS)			Apr2023	Sep2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0103986	PCA0097128	
Sample Date		Client Info		12 Sep 2023	20 Apr 2023	
Machine Age	mls	Client Info		97325	60571	
Oil Age	mls	Client Info		38325	21512	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METAL	.S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	24	29	
Chromium	ppm	ASTM D5185m	>20	<1	<1	
Nickel	ppm	ASTM D5185m	>4	<1	0	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m	>3	<1	0	
Aluminum	ppm	ASTM D5185m	>20	6	8	
Lead	ppm	ASTM D5185m	>40	2	2	
Copper	ppm	ASTM D5185m	>330	75	146	
Tin	ppm	ASTM D5185m	>15	2	3	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	0	2	
Barium	ppm	ASTM D5185m	0	0	0	
Molybdenum	ppm	ASTM D5185m	50	62	65	
Manganese	ppm	ASTM D5185m	0	1	2	
Magnesium	ppm	ASTM D5185m	950	1045	832	
Calcium	ppm	ASTM D5185m	1050	1266	1102	
Phosphorus				1200	1102	
	ppm	ASTM D5185m	995	948	815	
Zinc	ppm	ASTM D5185m ASTM D5185m	995 1180			
Zinc Sulfur				948	815	
-	ppm ppm	ASTM D5185m	1180	948 1313	815 1077	
Sulfur	ppm ppm	ASTM D5185m ASTM D5185m	1180 2600 limit/base	948 1313 3199	815 1077 2295	
Sulfur CONTAMINAN	ppm ppm ITS	ASTM D5185m ASTM D5185m method	1180 2600 limit/base	948 1313 3199 current	815 1077 2295 history1	 history2
Sulfur CONTAMINAN Silicon	ppm ppm ITS ppm	ASTM D5185m ASTM D5185m method ASTM D5185m	1180 2600 limit/base >25	948 1313 3199 current 8	815 1077 2295 history1 13	 history2
Sulfur CONTAMINAN Silicon Sodium	ppm ppm ITS ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	1180 2600 limit/base >25	948 1313 3199 current 8 3	815 1077 2295 history1 13 <1	 history2
Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ITS ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	1180 2600 limit/base >25 >20	948 1313 3199 current 8 3 15	815 1077 2295 history1 13 <1 29	 history2
Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ITS ppm ppm ppm	ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m method	1180 2600 limit/base >25 >20 limit/base	948 1313 3199 current 8 3 15 current	815 1077 2295 history1 13 <1 29 history1	history2
Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ITS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844	1180 2600 limit/base >25 >20 limit/base >3 >20	948 1313 3199 current 8 3 15 current 0.4	815 1077 2295 history1 13 <1 29 history1 0.4	 history2 history2
Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	1180 2600 limit/base >25 >20 limit/base >3 >20	948 1313 3199 current 8 3 15 current 0.4 9.5	815 1077 2295 history1 13 <1 29 history1 0.4 9.9	 history2 history2
Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7624	1180 2600 limit/base >25 >20 limit/base >3 >20 >30 limit/base	948 1313 3199 current 8 3 15 current 0.4 9.5 21.1	815 1077 2295 history1 13 <1 29 history1 0.4 9.9 21.6	 history2 history2



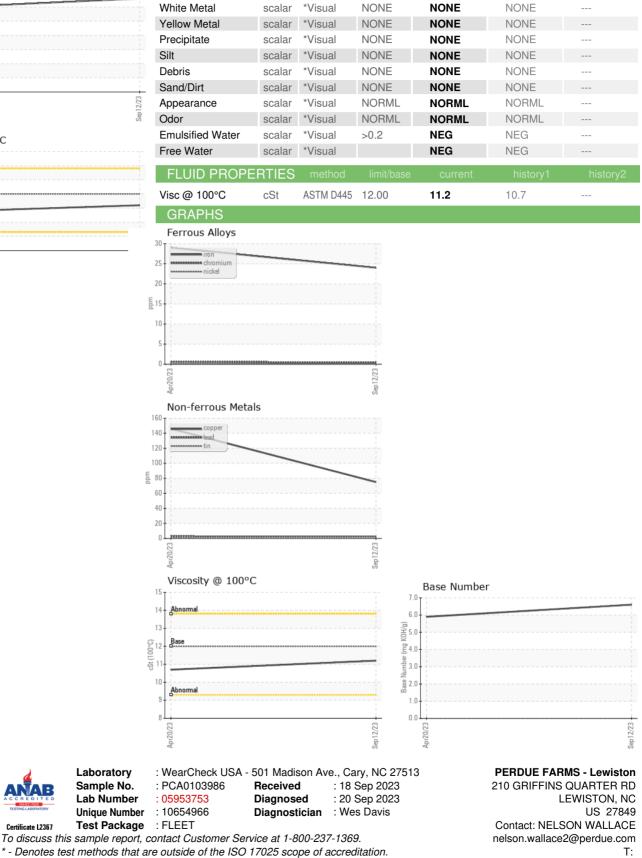
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VISUAL









Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Certificate L2367

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