

OIL ANALYSIS REPORT

(90251X) Walgreens - Tractor [Walgreens - Tractor] 136A66090

Diesel Engine

PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

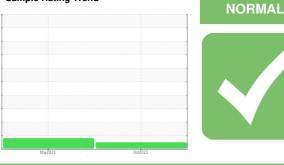
All component wear rates are normal.

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 Rating Trend



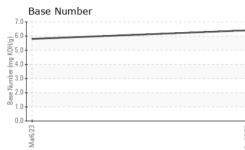
			11 11 /1			
SAMPLE INFOR	VIATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0107382	PCA0092839	
Sample Date		Client Info		23 Oct 2023	06 Mar 2023	
Machine Age	mls	Client Info		691107	660911	
Oil Age	mls	Client Info		50000	50000	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	ABNORMAL	
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	>80	39	58	
Chromium	ppm	ASTM D5185m	>5	2	4	
Nickel	ppm	ASTM D5185m	>2	0	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>3	<1	<1	
Aluminum	ppm	ASTM D5185m	>30	19	A 34	
Lead	ppm	ASTM D5185m	>30	0	0	
Copper	ppm	ASTM D5185m	>150	6	8	
Tin	ppm	ASTM D5185m	>5	<1	<1	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 5	history1 4	history2
	ppm ppm					
Boron		ASTM D5185m	2	5	4	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	5 0	4	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	5 0 61	4 0 66	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	5 0 61 <1	4 0 66 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	5 0 61 <1 928 1110 1046	4 0 66 <1 943	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180	5 0 61 <1 928 1110	4 0 66 <1 943 1119 974 1263	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	5 0 61 <1 928 1110 1046	4 0 66 <1 943 1119 974	
Boron Barium Molybdenum 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 ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	5 0 61 <1 928 1110 1046 1261	4 0 66 <1 943 1119 974 1263	
Boron Barium Molybdenum 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 ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	5 0 61 <1 928 1110 1046 1261 2614	4 0 66 <1 943 1119 974 1263 3002 history1 7	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	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	2 0 50 950 1050 995 1180 2600	5 0 61 <1 928 1110 1046 1261 2614 current	4 0 66 <1 943 1119 974 1263 3002 history1 7 2	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	2 0 50 950 1050 995 1180 2600 limit/base >20	5 0 61 <1 928 1110 1046 1261 2614 2614 <i>current</i> 8	4 0 66 <1 943 1119 974 1263 3002 history1 7	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >20	5 0 61 <1 928 1110 1046 1261 2614 2614 <u>current</u> 8 2	4 0 66 <1 943 1119 974 1263 3002 history1 7 2	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >20	5 0 61 <1 928 1110 1046 1261 2614 <i>current</i> 8 2 <1 <i>current</i> 1.2	4 0 66 <1 943 1119 974 1263 3002 history1 7 2 2 <1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >20 limit/base	5 0 61 <1 928 1110 1046 1261 2614 2614 2614 8 2 2 <1 2 <1	4 0 66 <1 943 1119 974 1263 3002 history1 7 2 <1 7	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >20 }	5 0 61 <1 928 1110 1046 1261 2614 <i>current</i> 8 2 <1 <i>current</i> 1.2	4 0 66 <1 943 1119 974 1263 3002 history1 7 2 <1 7 2 <1 history1 1.5	 history2 history2
Boron Barium Molybdenum Manganese 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	2 0 50 950 1050 995 1180 2600 <i>limit/base</i> >20 <i>limit/base</i> >3 >20	5 0 61 <1 928 1110 1046 1261 2614 <i>current</i> 8 2 <1 <i>current</i> 1.2 10.6	4 0 66 <1 943 1119 974 1263 3002 history1 7 2 <1 7 2 <1 history1 1.5 11.6	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium 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	2 0 50 1050 955 1050 995 1180 2600 imit/base >20 imit/base >3 >20 >3	5 0 61 <1 928 1110 1046 1261 2614 <i>current</i> 8 2 <1 <i>current</i> 1.2 10.6 22.9	4 0 66 <1 943 1119 974 1263 3002 history1 7 2 <1 7 2 <1 1.5 11.6 25.2	 history2 history2 history2

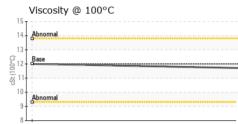


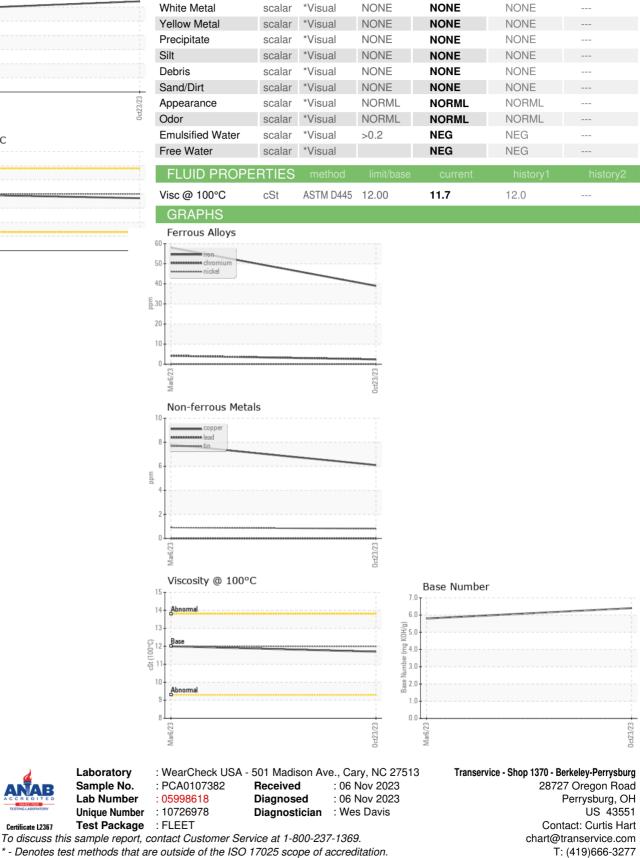
Mar6/23

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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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