

OIL ANALYSIS REPORT

(89701X) Walgreens - Tractor [Walgreens - Tractor] 136A67140

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



SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0105863	PCA0091548	
Sample Date		Client Info		26 Dec 2023	23 Aug 2023	
Machine Age	hrs	Client Info		540473	0	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINAT		method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	mistoryz
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method	20.2	NEG	NEG	
-	•					
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	17	10	
Chromium	ppm	ASTM D5185m	>4	<1	<1	
Nickel	ppm	ASTM D5185m	>2	0	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm	ASTM D5185m	>25	4	<1	
Lead	ppm	ASTM D5185m	>45	0	0	
Copper	ppm	ASTM D5185m	>85	3	3	
Tin	ppm	ASTM D5185m	>4	0	0	
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 2	history1 0	history2
Boron	ppm	ASTM D5185m	2	2	0	
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m	2 0	2 0	0	
Boron Barium Molybdenum	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	2 0 58	0 0 59	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	2 0 58 <1	0 0 59 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	2 0 58 <1 926	0 0 59 <1 945	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	2 0 58 <1 926 994	0 0 59 <1 945 1049	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm 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	2 0 58 <1 926 994 940	0 0 59 <1 945 1049 1008	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm 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	2 0 58 <1 926 994 940 1197	0 0 59 <1 945 1049 1008 1223	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm 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	2 0 58 <1 926 994 940 1197 2746	0 0 59 <1 945 1049 1008 1223 3532	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	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	2 0 50 950 1050 995 1180 2600	2 0 58 <1 926 994 940 1197 2746 current	0 0 59 <1 945 1049 1008 1223 3532 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	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 method	2 0 50 950 1050 995 1180 2600	2 0 58 <1 926 994 940 1197 2746 current 10	0 0 59 <1 945 1049 1008 1223 3532 history1 8	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	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 D5185m	2 0 50 950 1050 995 1180 2600 limit/base >30	2 0 58 <1 926 994 940 1197 2746 <u>current</u> 10 1	0 0 59 <1 945 1049 1008 1223 3532 history1 8 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 ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >30 -20 Imit/base	2 0 58 <1 926 994 940 1197 2746 current 10 1 2 2 2 <i>current</i>	0 0 59 <1 945 1049 1008 1223 3532 history1 8 1 <1 <1 history1	 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 ppm TS ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >30 20 limit/base >30	2 0 58 <1 926 994 940 1197 2746 <i>current</i> 10 1 2 2 <i>current</i> 0.7	0 0 59 <1 945 1049 1008 1223 3532 history1 8 1 <1 <1 history1 0.4	 history2 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 ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >30 -20 Imit/base	2 0 58 <1 926 994 940 1197 2746 current 10 1 2 2 2 <i>current</i>	0 0 59 <1 945 1049 1008 1223 3532 history1 8 1 <1 <1 history1	 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 50 950 1050 995 1180 2600 <i>limit/base</i> >30 <i>limit/base</i> >20	2 0 58 <1 926 994 940 1197 2746 <i>current</i> 10 1 2 2 <i>current</i> 0.7 9.6	0 0 59 <1 945 1049 1008 1223 3532 history1 8 1 <1 <1 0.4 7.6 18.7	 history2 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 TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 0 50 0 950 1050 995 1180 2600 imit/base >30 >20 >30 >20 >30 >30 >30	2 0 58 <1 926 994 940 1197 2746 <i>current</i> 10 1 2 2 <i>current</i> 0.7 9.6 20.5 <i>current</i>	0 0 59 <1 945 1049 1008 1223 3532 history1 8 1 <1 <1 0.4 7.6 18.7 history1	 history2 history2 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 50 950 1050 995 1180 2600 imit/base >30 imit/base >3 20 imit/base	2 0 58 <1 926 994 940 1197 2746 <u>current</u> 10 1 2 2 <u>current</u> 0.7 9.6 20.5	0 0 59 <1 945 1049 1008 1223 3532 history1 8 1 <1 <1 0.4 7.6 18.7	 history2 history2 history2



cSt (100°C) Ba

Abnorm

Aug23/23





