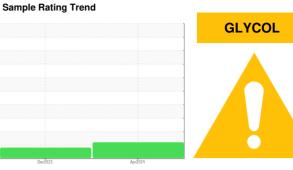


OIL ANALYSIS REPORT



Machine Id 736798

Diesel Engine

PETRO CANADA DURON SHP 10W30 (--- G

DIAGNOSIS

Recommendation

We advise that you check for possible coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

QTS)			Dec2023	Apr2024		
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0121443	PCA0112267	
Sample Date		Client Info		12 Apr 2024	08 Dec 2023	
Machine Age	mls	Client Info		71118	125181	
Oil Age	mls	Client Info		71118	125181	
Oil Changed		Client Info		Changed	Changed	
Sample Status				ABNORMAL	ABNORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	76	▲ 108	
Chromium		ASTM D5185m	>100	3	4	
Nickel	ppm	ASTM D5185m	>4	ა 1	2	
Titanium	ppm	ASTM D5185m	>4	13	3	
Silver	ppm	ASTM D5185m	>3	าง <1	0	
Aluminum	ppm				14	
	ppm	ASTM D5185m	>20	9		
Lead	ppm	ASTM D5185m	>40	<1	<1	
Copper	ppm	ASTM D5185m	>330	19	52	
Tin	ppm	ASTM D5185m	>15	1	2	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		<1	<1	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 3	history1	history2
	ppm ppm					
Boron		ASTM D5185m	2	3	2	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0 50	3 0	2	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	3 0 63	2 12 65	
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	3 0 63 2	2 12 65 2	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	3 0 63 2 845	2 12 65 2 995	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	3 0 63 2 845 1257	2 12 65 2 995 1162	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995	3 0 63 2 845 1257 887	2 12 65 2 995 1162 980	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	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 0 950 1050 995 1180	3 0 63 2 845 1257 887 1236	2 12 65 2 995 1162 980 1269	
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 ASTM D5185m	2 0 50 0 950 1050 995 1180 2600	3 0 63 2 845 1257 887 1236 2416	2 12 65 2 995 1162 980 1269 2316	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base	3 0 63 2 845 1257 887 1236 2416 current	2 12 65 2 995 1162 980 1269 2316 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25	3 0 63 2 845 1257 887 1236 2416 current 9	2 12 65 2 995 1162 980 1269 2316 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25	3 0 63 2 845 1257 887 1236 2416 current	2 12 65 2 995 1162 980 1269 2316 history1 8	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25	3 0 63 2 845 1257 887 1236 2416 current 9 13 100 NEG	2 12 65 2 995 1162 980 1269 2316 history1 8 0 34 NEG	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D2982 *Method	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	3 0 63 2 845 1257 887 1236 2416 current 9 13 ▲ 100 NEG	2 12 65 2 995 1162 980 1269 2316 history1 8 0 34 NEG	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D7844	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	3 0 63 2 845 1257 887 1236 2416 current 9 13 ▲ 100 NEG current	2 12 65 2 995 1162 980 1269 2316 history1 8 0 34 NEG history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm	ASTM D5185m **ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m **ASTM D7844 **ASTM D7844	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	3 0 63 2 845 1257 887 1236 2416 current 9 13 ▲ 100 NEG current 1.9	2 12 65 2 995 1162 980 1269 2316 history1 8 0 34 NEG history1 1.7	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D7844	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	3 0 63 2 845 1257 887 1236 2416 current 9 13 ▲ 100 NEG current	2 12 65 2 995 1162 980 1269 2316 history1 8 0 34 NEG history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	3 0 63 2 845 1257 887 1236 2416 current 9 13 ▲ 100 NEG current 1.9	2 12 65 2 995 1162 980 1269 2316 history1 8 0 34 NEG history1 1.7	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 	3 0 63 2 845 1257 887 1236 2416 current 9 13 100 NEG current 1.9 14.3 28.1	2 12 65 2 995 1162 980 1269 2316 history1 8 0 34 NEG history1 1.7 14.0 25.8	history2 history2



OIL ANALYSIS REPORT







Certificate 12367

Laboratory

Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0121443 Lab Number : 06157268

Unique Number : 10992691 Test Package : MOB 1 (Additional Tests: Glycol, TBN)

Received **Tested** Diagnosed

: 23 Apr 2024 : 25 Apr 2024

: 25 Apr 2024 - Jonathan Hester

To discuss this sample report, contact Customer Service at 1-800-237-1369.

US 19116 Contact: ROSTY VITER rviter@millertransgroup.com T: (215)552-9832

MILLER TRUCK LEASING #118

2196 BENNETT ROAD

PHILADELPHIA, PA

 st - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: (215)552-9892