

OIL ANALYSIS REPORT

Sample Rating Trend

Mark 2024

NORMAL



Machine Id

1922286

Diesel Engine

PETRO CANADA DURON SHP 10W30 (--- 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

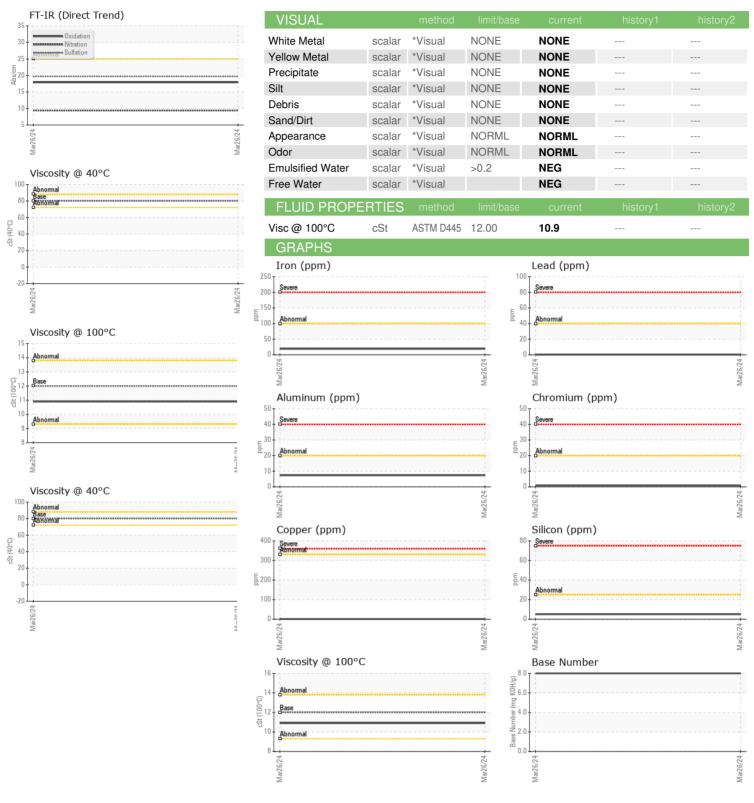
Fluid Condition

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

Sample Number Sample Date Machine Age Oil Age Oil Changed Glient Info Sample Status CONTAMINATION Fuel WC Method Water Glycol WEAR METALS Method WEAR METALS Method Wicher Mickel Mitanium Mickel Mitanium Mickel Moppm Mostm D5185m Moppm Mostm D5185m Morandium Moran	Mw2024				
Sample Date Machine Age Mis Client Info Machine Age Mis Client Info Oil Age Mis Client Info Oil Changed Sample Status CONTAMINATION Fuel WC Method Water WC Method Wisher Wish	limit/base	current	history1	history2	
Machine Age		PCA0119166			
Oil Age Oil Changed Client Info Oil Changed Client Info Sample Status CONTAMINATION method Fuel WC Method Water WC Method Glycol WC Method Iron ppm ASTM D5185m Chromium ppm ASTM D5185m Nickel ppm ASTM D5185m Silver ppm ASTM D5185m Aluminum ppm ASTM D5185m Copper ppm ASTM D5185m Copper ppm ASTM D5185m Cadmium ppm ASTM D5185m Calcium ppm ASTM D5185m Manganese ppm ASTM D5185m Calcium ppm ASTM D5185m Calcium ppm ASTM D5185m Calcium ppm ASTM D5185m Contamination ppm ASTM D5185m Calcium ppm ASTM D5185m Contamination ppm ASTM D5185m Contami		26 Mar 2024			
Oil Changed Sample Status CONTAMINATION Fuel Water Glycol WC Method Water Glycol WC Method WEAR METALS Method Wickel Diron Nickel Diron Nickel Diron Mickel Diron Mickel Diron Mickel Diron Mastm D5185m Mickel Diron Mickel Diro		192948			
CONTAMINATION method Water WC Method Water WC Method Water WC Method WEAR METALS method Iron ppm ASTM D5185m Chromium ppm ASTM D5185m Nickel ppm ASTM D5185m Silver ppm ASTM D5185m Aluminum ppm ASTM D5185m Lead ppm ASTM D5185m Copper ppm ASTM D5185m Tin ppm ASTM D5185m Vanadium ppm ASTM D5185m Cadmium ppm ASTM D5185m Cadmium ppm ASTM D5185m ADDITIVES method Barium ppm ASTM D5185m Manganese ppm ASTM D5185m Manganese ppm ASTM D5185m Calcium ppm ASTM D5185m Contamination pp		0			
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Water Glycol WC Method WEAR METALS Iron Chromium Chromium Nickel Dpm ASTM D5185m Nickel Dpm ASTM D5185m Nickel Dpm ASTM D5185m ASTM D5185m Aluminum Dpm ASTM D5185m ASTM D5185m Aluminum Dpm ASTM D5185m ADDITIVES Method Boron Dpm ASTM D5185m ASTM D5185m ASTM D5185m ADDITIVES Method Barium Dpm ASTM D5185m Calcium Dpm ASTM D5185m ASTM D5185m ASTM D5185m Contamination ASTM D5185m A	limit/base	current	history1	history2	
WC Method WEAR METALS method Iron ppm ASTM D5185m Chromium ppm ASTM D5185m Nickel ppm ASTM D5185m Titanium ppm ASTM D5185m Silver ppm ASTM D5185m Aluminum ppm ASTM D5185m Lead ppm ASTM D5185m Copper ppm ASTM D5185m Vanadium ppm ASTM D5185m Cadmium ppm ASTM D5185m Cadmium ppm ASTM D5185m ADDITIVES method Barium ppm ASTM D5185m Manganese ppm ASTM D5185m Magnesium ppm ASTM D5185m Calcium ppm ASTM D5185m Contamination ppm ASTM D5185m Calcium ppm ASTM D5185m Calcium ppm ASTM D5185m Calcium ppm ASTM D5185m Chack ppm ASTM D5185m Calcium ppm ASTM D5185m Chack ppm ASTM D5185m ASTM D5185m Contamination ppm ASTM D5185m ASTM D5185m Contamination ppm ASTM D5185m ASTM D51	>5	<1.0			
WEAR METALS Iron ppm ASTM D5185m Chromium ppm ASTM D5185m Nickel ppm ASTM D5185m Titanium ppm ASTM D5185m Silver ppm ASTM D5185m Aluminum ppm ASTM D5185m Lead ppm ASTM D5185m Copper ppm ASTM D5185m Tin ppm ASTM D5185m Vanadium ppm ASTM D5185m Cadmium ppm ASTM D5185m Cadmium ppm ASTM D5185m ADDITIVES method Barium ppm ASTM D5185m Molybdenum ppm ASTM D5185m Manganese ppm ASTM D5185m Calcium ppm ASTM D5185m Contamination ppm ASTM D5185m Sulfur ppm ASTM D5185m Sulfur ppm ASTM D5185m Contamination ppm ASTM D5185m Contami	>0.2	NEG			
Chromium ppm ASTM D5185m Nickel ppm ASTM D5185m Nickel ppm ASTM D5185m Silver ppm ASTM D5185m Aluminum ppm ASTM D5185m Lead ppm ASTM D5185m Copper ppm ASTM D5185m Vanadium ppm ASTM D5185m Cadmium ppm ASTM D5185m Cadmium ppm ASTM D5185m Cadmium ppm ASTM D5185m ADDITIVES method Barium ppm ASTM D5185m Manganese ppm ASTM D5185m Magnesium ppm ASTM D5185m Calcium ppm ASTM D5185m Contamination ppm ASTM D5185m Contamination ppm ASTM D5185m Sulfur ppm ASTM D5185m Contamination ppm ASTM D5185m Sulfur ppm ASTM D5185m Contamination ppm ASTM D5185m Contamination ppm ASTM D5185m Contamination ppm ASTM D5185m Contamination ppm ASTM D5185m Potassium ppm ASTM D5185m		NEG			
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Nickel ppm ASTM D5185m Fitanium ppm ASTM D5185m Aluminum ppm ASTM D5185m Aluminum ppm ASTM D5185m Lead ppm ASTM D5185m Lead ppm ASTM D5185m Copper ppm ASTM D5185m Vanadium ppm ASTM D5185m Vanadium ppm ASTM D5185m Cadmium ppm ASTM D5185m ADDITIVES method Barium ppm ASTM D5185m Manganese ppm ASTM D5185m Manganese ppm ASTM D5185m Calcium ppm ASTM D5185m Contained ppm ASTM D5185m Contained ppm ASTM D5185m Contained ppm ASTM D5185m Solifur ppm ASTM D5185m Contained ppm ASTM D5185m AST	>100	19			
Titanium ppm ASTM D5185m Aluminum ppm ASTM D5185m Aluminum ppm ASTM D5185m Lead ppm ASTM D5185m Copper ppm ASTM D5185m Vanadium ppm ASTM D5185m Vanadium ppm ASTM D5185m Cadmium ppm ASTM D5185m ADDITIVES method Boron ppm ASTM D5185m Barium ppm ASTM D5185m Molybdenum ppm ASTM D5185m Manganese ppm ASTM D5185m Calcium ppm ASTM D5185m Contakina ppm ASTM D5185m Solitor ppm ASTM D5185m CONTAMINANTS method Silicon ppm ASTM D5185m CONTAMINANTS method Soliton ppm ASTM D5185m North D5185m CONTAMINANTS method Soliton ppm ASTM D5185m North D	>20	<1			
Silver ppm ASTM D5185m Aluminum ppm ASTM D5185m Lead ppm ASTM D5185m Copper ppm ASTM D5185m Tin ppm ASTM D5185m Vanadium ppm ASTM D5185m Cadmium ppm ASTM D5185m Cadmium ppm ASTM D5185m ADDITIVES method Boron ppm ASTM D5185m Barium ppm ASTM D5185m Molybdenum ppm ASTM D5185m Manganese ppm ASTM D5185m Calcium ppm ASTM D5185m Contamination ppm ASTM D5185m Contaminatio	>4	<1			
Aluminum ppm ASTM D5185m Lead ppm ASTM D5185m Copper ppm ASTM D5185m Tin ppm ASTM D5185m Vanadium ppm ASTM D5185m Cadmium ppm ASTM D5185m Cadmium ppm ASTM D5185m Cadmium ppm ASTM D5185m ADDITIVES method Barium ppm ASTM D5185m Molybdenum ppm ASTM D5185m Manganese ppm ASTM D5185m Calcium ppm ASTM D5185m Calcium ppm ASTM D5185m Chosphorus ppm ASTM D5185m Chosphorus ppm ASTM D5185m Contamination p		<1			
Lead ppm ASTM D5185m Copper ppm ASTM D5185m Fin ppm ASTM D5185m Vanadium ppm ASTM D5185m Cadmium ppm ASTM D5185m Cadmium ppm ASTM D5185m ADDITIVES method Barium ppm ASTM D5185m Molybdenum ppm ASTM D5185m Manganese ppm ASTM D5185m Calcium ppm ASTM D5185m Chosphorus ppm ASTM D5185m Contamination ppm ASTM	>3	<1			
Copper ppm ASTM D5185m ppm AST	>20	7			
Tin ppm ASTM D5185m Vanadium ppm ASTM D5185m Cadmium ppm ASTM D5185m ADDITIVES method Boron ppm ASTM D5185m Barium ppm ASTM D5185m Molybdenum ppm ASTM D5185m Manganese ppm ASTM D5185m Calcium ppm ASTM D5185m Phosphorus ppm ASTM D5185m Calcium ppm ASTM D5185m Calcium ppm ASTM D5185m Calcium ppm ASTM D5185m Contain ppm ASTM D5185m Contain ppm ASTM D5185m Sodium ppm ASTM D5185m CONTAMINANTS method Silicon ppm ASTM D5185m Contain ppm AST	>40	<1			
Vanadium ppm ASTM D5185m Cadmium ppm ASTM D5185m ADDITIVES method Barium ppm ASTM D5185m Barium ppm ASTM D5185m Molybdenum ppm ASTM D5185m Manganese ppm ASTM D5185m Magnesium ppm ASTM D5185m Calcium ppm ASTM D5185m Phosphorus ppm ASTM D5185m Calcium ppm ASTM D5185m Calcium ppm ASTM D5185m Calcium ppm ASTM D5185m Contamination ppm AST	>330	1			
ADDITIVES method ASTM D5185m ADDITIVES method Boron Barium ppm ASTM D5185m Molybdenum ppm ASTM D5185m Manganese ppm ASTM D5185m Magnesium ppm ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Phosphorus ppm ASTM D5185m Phosphorus ppm ASTM D5185m ASTM D5185m Phosphorus ppm ASTM D5185m ASTM D5185m CONTAMINANTS method Solicon ppm ASTM D5185m CONTAMINANTS method Solicon ppm ASTM D5185m Potassium ppm ASTM D5185m Potassium ppm ASTM D5185m ASTM D7844 ASTM D7844	>15	<1			
ADDITIVES Boron ppm ASTM D5185m Barium ppm ASTM D5185m Molybdenum ppm ASTM D5185m Manganese ppm ASTM D5185m Magnesium ppm ASTM D5185m Calcium ppm ASTM D5185m Phosphorus ppm ASTM D5185m Sulfur ppm ASTM D5185m CONTAMINANTS method Silicon ppm ASTM D5185m Potassium ppm ASTM D5185m CONTAMINANTS method Silicon ppm ASTM D5185m Fotassium ppm ASTM D5185m ASTM D5185m Fotassium ppm ASTM D5		<1			
Boron ppm ASTM D5185m Barium ppm ASTM D5185m Molybdenum ppm ASTM D5185m Manganese ppm ASTM D5185m Magnesium ppm ASTM D5185m Calcium ppm ASTM D5185m Phosphorus ppm ASTM D5185m Zinc ppm ASTM D5185m Sulfur ppm ASTM D5185m CONTAMINANTS method Silicon ppm ASTM D5185m Potassium ppm ASTM D5185m Potassium ppm ASTM D5185m Potassium ppm ASTM D5185m NFRA-RED method Soot % "ASTM D7844 Nitration Abs/.1mm "ASTM D7415		0			
Barium ppm ASTM D5185m Molybdenum ppm ASTM D5185m Manganese ppm ASTM D5185m Magnesium ppm ASTM D5185m Calcium ppm ASTM D5185m Phosphorus ppm ASTM D5185m Zinc ppm ASTM D5185m Sulfur ppm ASTM D5185m CONTAMINANTS method Silicon ppm ASTM D5185m Sodium ppm ASTM D5185m Potassium ppm ASTM D5185m INFRA-RED method Soot % "ASTM D7844 Nitration Abs/cm "ASTM D7415	limit/base	current	history1	history2	
Molybdenum ppm ASTM D5185m Manganese ppm ASTM D5185m Magnesium ppm ASTM D5185m Calcium ppm ASTM D5185m Phosphorus ppm ASTM D5185m Zinc ppm ASTM D5185m Sulfur ppm ASTM D5185m CONTAMINANTS method Silicon ppm ASTM D5185m Potassium ppm ASTM D5185m Potassium ppm ASTM D5185m INFRA-RED method Soot % % *ASTM D7844 Nitration Abs/cm *ASTM D7624 Sulfation Abs/.1mm *ASTM D7415	2	33			
ManganeseppmASTM D5185mMagnesiumppmASTM D5185mCalciumppmASTM D5185mPhosphorusppmASTM D5185mZincppmASTM D5185mSulfurppmASTM D5185mCONTAMINANTSmethodSiliconppmASTM D5185mSodiumppmASTM D5185mPotassiumppmASTM D5185mINFRA-REDmethodSoot %%*ASTM D7844NitrationAbs/cm*ASTM D7624SulfationAbs/.1mm*ASTM D7415	0	0			
Manganese ppm ASTM D5185m Magnesium ppm ASTM D5185m Calcium ppm ASTM D5185m Phosphorus ppm ASTM D5185m Zinc ppm ASTM D5185m Sulfur ppm ASTM D5185m CONTAMINANTS method Silicon ppm ASTM D5185m Sodium ppm ASTM D5185m Potassium ppm ASTM D5185m INFRA-RED method Soot % % *ASTM D7844 Nitration Abs/cm *ASTM D7624 Sulfation Abs/.1mm *ASTM D7415	50	59			
Magnesium ppm ASTM D5185m Calcium ppm ASTM D5185m Phosphorus ppm ASTM D5185m Zinc ppm ASTM D5185m Sulfur ppm ASTM D5185m CONTAMINANTS method Silicon ppm ASTM D5185m Sodium ppm ASTM D5185m Potassium ppm ASTM D5185m INFRA-RED method Soot % "ASTM D7844 Nitration Abs/cm "ASTM D7624 Sulfation Abs/.1mm "ASTM D7415	0	<1			
Calcium ppm ASTM D5185m Phosphorus ppm ASTM D5185m Zinc ppm ASTM D5185m Sulfur ppm ASTM D5185m CONTAMINANTS method Silicon ppm ASTM D5185m Sodium ppm ASTM D5185m Potassium ppm ASTM D5185m INFRA-RED method Soot % "ASTM D7844 Nitration Abs/cm "ASTM D7624 Sulfation Abs/.1mm "ASTM D7415	950	801			
Phosphorus ppm ASTM D5185m Zinc ppm ASTM D5185m Sulfur ppm ASTM D5185m CONTAMINANTS method Silicon ppm ASTM D5185m Sodium ppm ASTM D5185m Potassium ppm ASTM D5185m INFRA-RED method Soot % "ASTM D7844 Nitration Abs/cm "ASTM D7415	1050	1168			
Zinc ppm ASTM D5185m Sulfur ppm ASTM D5185m CONTAMINANTS method Silicon ppm ASTM D5185m Sodium ppm ASTM D5185m Potassium ppm ASTM D5185m INFRA-RED method Soot % % *ASTM D7844 Nitration Abs/cm *ASTM D7624 Sulfation Abs/.1mm *ASTM D7415	995	980			
Sulfur ppm ASTM D5185m CONTAMINANTS method Silicon ppm ASTM D5185m Sodium ppm ASTM D5185m Potassium ppm ASTM D5185m INFRA-RED method Soot % % *ASTM D7844 Nitration Abs/cm *ASTM D7624 Sulfation Abs/.1mm *ASTM D7415	1180	1212			
Silicon ppm ASTM D5185m Sodium ppm ASTM D5185m Potassium ppm ASTM D5185m INFRA-RED method Soot % % *ASTM D7844 Nitration Abs/cm *ASTM D7624 Sulfation Abs/.1mm *ASTM D7415	2600	3326			
Sodium ppm ASTM D5185m Potassium ppm ASTM D5185m INFRA-RED method Soot % % *ASTM D7844 Nitration Abs/cm *ASTM D7624 Sulfation Abs/.1mm *ASTM D7415	limit/base	current	history1	history2	
Sodium ppm ASTM D5185m Potassium ppm ASTM D5185m INFRA-RED method Soot % % *ASTM D7844 Nitration Abs/cm *ASTM D7624 Sulfation Abs/.1mm *ASTM D7415	>25	5			
Potassium ppm ASTM D5185m INFRA-RED method Soot % % *ASTM D7844 Nitration Abs/cm *ASTM D7624 Sulfation Abs/.1mm *ASTM D7415		<1			
Soot % % *ASTM D7844 Nitration Abs/cm *ASTM D7624 Sulfation Abs/.1mm *ASTM D7415	>20	7			
Nitration Abs/cm *ASTM D7624 Sulfation Abs/.1mm *ASTM D7415	limit/base	current	history1	history2	
Nitration Abs/cm *ASTM D7624 Sulfation Abs/.1mm *ASTM D7415	>3	0.3			
Sulfation Abs/.1mm *ASTM D7415	>20	9.4			
FLUID DEGRADATION method	>30	19.7			
	limit/base	current	history1	history2	
Oxidation Abs/.1mm *ASTM D7414	>25	17.9			
Base Number (BN) mg KOH/g ASTM D2896		8.00			



OIL ANALYSIS REPORT





Certificate 12367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0119166 Lab Number : 06188493 Unique Number : 11045245

Received **Tested** Diagnosed

: 28 May 2024 : 28 May 2024 - Sean Felton

: 22 May 2024

Test Package : MOB 1 (Additional Tests: KV40, TBN) To discuss this sample report, contact Customer Service at 1-800-237-1369.

 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)

MILLER TRUCK LEASING #129

3 LINDEN AVE E JERSEY CITY, NJ US 07305

Contact: BILL CUCCIA wcuccia@millertransgroup.com

T: F:

Report Id: MILJER [WUSCAR] 06188493 (Generated: 05/28/2024 15:00:14) Rev: 1

Contact/Location: BILL CUCCIA - MILJER