

OIL ANALYSIS REPORT

Sample Rating Trend







735457Component

Machine Id

Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (--- QTS

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

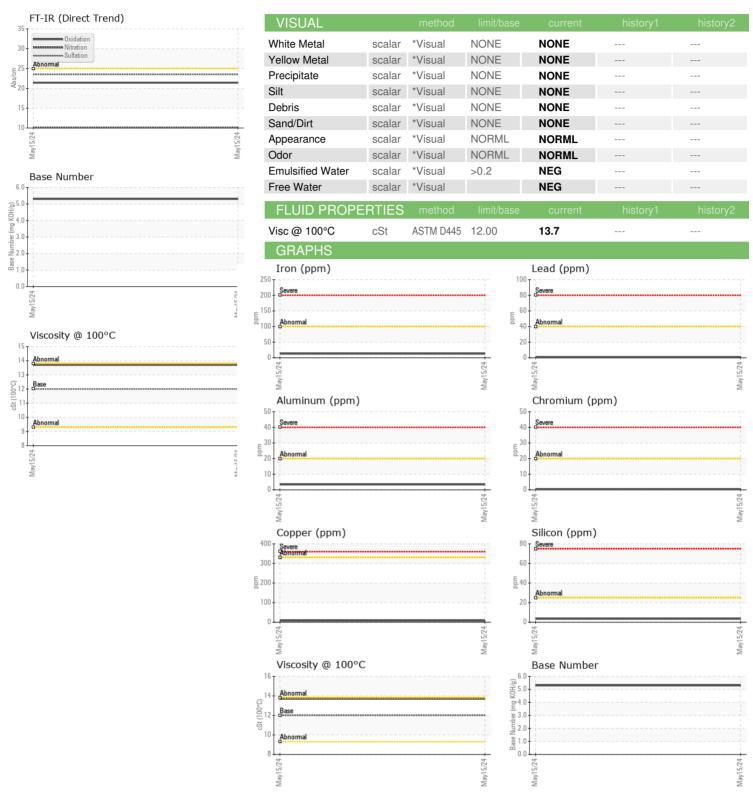
Fluid Condition

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 Client Info PCA0121033							
Sample Number Client Info PCA0121033	NTS)		L		May2024		
Sample Number Client Info PCA0121033	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Date Client Info 15 May 2024	Sample Number		Client Info		PCA0121033		
Machine Age mls Client Info 173473	•						
Oil Age mls Client Info 0 Oil Changed Client Info Changed Sample Status NORMAL CONTAMINATION method limit/base current history1 history1 Fuel WC Method NEG Water WC Method NEG Glycol WC Method NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >100 13 Nickel ppm ASTM D5185m >20 -1 Nickel ppm ASTM D5185m 3 0 Silver ppm ASTM D5185m >20 3 Capper ppm ASTM D5185m >40 -1	•	mls			•		
Contamped Client Info Changed Client Info Normal Contamped Client Info Normal Contamped Client Info Contamped Cont	•						
CONTAMINATION	-	0			-		
CONTAMINATION method limit/base current history1 history1 Fuel WC Method >5 <1.0	-						
Fuel WC Method So.2 NEG So.2 NEG So.2 NEG So.2 NEG So.2 NEG So.2 NEG So.3 S	·	ION	method	limit/hase			history2
Water WC Method >0.2 NEG Glycol WC Method NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >100 13 Chromium ppm ASTM D5185m >20 <1 Nickel ppm ASTM D5185m >4 0 Silver ppm ASTM D5185m >20 3 Aluminum ppm ASTM D5185m >20 3 Aluminum ppm ASTM D5185m >40 <1 Lead ppm ASTM D5185m >40 <1 Copper ppm ASTM D5185m >40 <1 Vanadium ppm ASTM D5185m >15 0 </td <td></td> <td>ION</td> <td></td> <td></td> <td></td> <td></td> <td>HISTOTYZ</td>		ION					HISTOTYZ
WEAR METALS							
WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >100 13				>0.2			
Chromium			WC Method		NEG		
Chromium ppm ASTM D5185m >20 <1 Nickel ppm ASTM D5185m -4 0 Titanium ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m >3 0 Aluminum ppm ASTM D5185m >40 <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >4 0	_						
Description		ppm					
Silver	Nickel	ppm		>4			
Aluminum	Titanium	ppm	ASTM D5185m		0		
Lead	Silver	ppm	ASTM D5185m	>3	0		
Copper ppm ASTM D5185m >330 8 Tin ppm ASTM D5185m >15 0 Vanadium ppm ASTM D5185m <1	Aluminum	ppm	ASTM D5185m	>20	3		
Tin	Lead	ppm	ASTM D5185m	>40	<1		
Vanadium ppm ASTM D5185m <1 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history Boron ppm ASTM D5185m 2 54 Barium ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 50 8 Manganese ppm ASTM D5185m 950 102 Magnesium ppm ASTM D5185m 950 102 Calcium ppm ASTM D5185m 950 102 Phosphorus ppm ASTM D5185m 995 908 Zinc ppm ASTM D5185m 2600 3348 CONTAMINANTS method limit/base current history1 </td <td>Copper</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>330</td> <td>8</td> <td></td> <td></td>	Copper	ppm	ASTM D5185m	>330	8		
Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history Boron ppm ASTM D5185m 2 54 Barium ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 50 8 Manganese ppm ASTM D5185m 0 <1	Tin	ppm	ASTM D5185m	>15	0		
ADDITIVES method limit/base current history1 history Boron ppm ASTM D5185m 2 54 Barium ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 50 8 Manganese ppm ASTM D5185m 0 <1	Vanadium	ppm	ASTM D5185m		<1		
Boron	Cadmium	ppm	ASTM D5185m		0		
Barium ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 50 8 Manganese ppm ASTM D5185m 0 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 8 Manganese ppm ASTM D5185m 0 <1 Magnesium ppm ASTM D5185m 950 102 Calcium ppm ASTM D5185m 1050 2097 Phosphorus ppm ASTM D5185m 995 908 Zinc ppm ASTM D5185m 995 908 Sulfur ppm ASTM D5185m 2600 3348 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 20 11 Potassium ppm ASTM D5185m 20 11 INFRA-RED method limit/base	Boron	ppm	ASTM D5185m	2	54		
Manganese ppm ASTM D5185m 0 <1 Magnesium ppm ASTM D5185m 950 102 Calcium ppm ASTM D5185m 1050 2097 Phosphorus ppm ASTM D5185m 995 908 Zinc ppm ASTM D5185m 1180 1099 Sulfur ppm ASTM D5185m 2600 3348 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m >20 11 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.5	Barium	ppm	ASTM D5185m	0	0		
Magnesium ppm ASTM D5185m 950 102 Calcium ppm ASTM D5185m 1050 2097 Phosphorus ppm ASTM D5185m 995 908 Zinc ppm ASTM D5185m 1180 1099 Sulfur ppm ASTM D5185m 2600 3348 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m >20 11 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7624 >20 10.1 Sulfation Abs/.1mm *ASTM D7415 >30 <td>Molybdenum</td> <td>ppm</td> <td>ASTM D5185m</td> <td>50</td> <td>8</td> <td></td> <td></td>	Molybdenum	ppm	ASTM D5185m	50	8		
Calcium ppm ASTM D5185m 1 050 2097 Phosphorus ppm ASTM D5185m 995 908 Zinc ppm ASTM D5185m 1180 1099 Sulfur ppm ASTM D5185m 2600 3348 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m >20 11 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.5 Nitration Abs/:nm *ASTM D7415 >30 23.5 FLUID DEGRADATION method limit/base <td< td=""><td>Manganese</td><td>ppm</td><td>ASTM D5185m</td><td>0</td><td><1</td><td></td><td></td></td<>	Manganese	ppm	ASTM D5185m	0	<1		
Phosphorus ppm ASTM D5185m 995 908 Zinc ppm ASTM D5185m 1180 1099 Sulfur ppm ASTM D5185m 2600 3348 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m >20 11 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.5 Nitration Abs/cm *ASTM D7624 >20 10.1 Sulfation Abs/.1mm *ASTM D7415 >30 23.5 FLUID DEGRADATION method limit/base	Magnesium	ppm	ASTM D5185m	950	102		
Zinc ppm ASTM D5185m 1180 1099 Sulfur ppm ASTM D5185m 2600 3348 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m >20 11 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.5 Nitration Abs/cm *ASTM D7624 >20 10.1 Sulfation Abs/.1mm *ASTM D7415 >30 23.5 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 <td< td=""><td>Calcium</td><td>ppm</td><td>ASTM D5185m</td><td>1050</td><td>2097</td><td></td><td></td></td<>	Calcium	ppm	ASTM D5185m	1050	2097		
Sulfur ppm ASTM D5185m 2600 3348 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m >20 11 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.5 Nitration Abs/.1mm *ASTM D7624 >20 10.1 Sulfation Abs/.1mm *ASTM D7415 >30 23.5 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 21.4	Phosphorus	ppm	ASTM D5185m	995	908		
CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m >20 11 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.5 Nitration Abs/cm *ASTM D7624 >20 10.1 Sulfation Abs/.1mm *ASTM D7415 >30 23.5 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 21.4	Zinc	ppm	ASTM D5185m	1180	1099		
Silicon ppm ASTM D5185m >25 4 Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m >20 11 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.5 Nitration Abs/cm *ASTM D7624 >20 10.1 Sulfation Abs/.1mm *ASTM D7415 >30 23.5 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 21.4	Sulfur	ppm	ASTM D5185m	2600	3348		
Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m >20 11 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.5 Nitration Abs/cm *ASTM D7624 >20 10.1 Sulfation Abs/.1mm *ASTM D7415 >30 23.5 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 21.4	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 11 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.5 Nitration Abs/cm *ASTM D7624 >20 10.1 Sulfation Abs/.1mm *ASTM D7415 >30 23.5 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 21.4	Silicon	ppm	ASTM D5185m	>25	4		
INFRA-RED	Sodium	ppm	ASTM D5185m		2		
Soot % % *ASTM D7844 >3 0.5 Nitration Abs/cm *ASTM D7624 >20 10.1 Sulfation Abs/.1mm *ASTM D7415 >30 23.5 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 21.4	Potassium	ppm	ASTM D5185m	>20	11		
Nitration Abs/cm *ASTM D7624 >20 10.1 Sulfation Abs/.1mm *ASTM D7415 >30 23.5 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 21.4	INFRA-RED		method	limit/base	current	history1	history2
Nitration Abs/cm *ASTM D7624 >20 10.1 Sulfation Abs/.1mm *ASTM D7415 >30 23.5 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 21.4	Soot %	%	*ASTM D7844	>3	0.5		
Sulfation Abs/.1mm *ASTM D7415 >30 23.5 FLUID DEGRADATION method limit/base current history1 history Oxidation Abs/.1mm *ASTM D7414 >25 21.4				>20			
Oxidation							
	FLUID DEGRA	<u>NOI</u> TAC	method	limit/base	current	history1	history2
	Oxidation	Abs/1mm	*ASTM D7414	>25	21.4		
Base Number (BN) mg KOH/g ASTM D2896 5.3							



OIL ANALYSIS REPORT







Certificate 12367

Laboratory Sample No.

Lab Number : 06202479 Unique Number : 11069940

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0121033

Received **Tested** Diagnosed

: 07 Jun 2024 : 11 Jun 2024 : 11 Jun 2024 - Sean Felton

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

* - 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 #114

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