

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 101726

Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (--- G

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the

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.

Client Info	iAL)			Nov2023	Mar2024		
Client Info	SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Machine Age mls Client Info G2281 49264	Sample Number		Client Info		PCA0110687	PCA0097352	
Dil Age	Sample Date		Client Info		30 Mar 2024	14 Nov 2023	
Client Info NORMAL NORMA	Machine Age	mls	Client Info		62281	49264	
CONTAMINATION method militibase current history1 history2	Oil Age	mls	Client Info		13017	2091	
CONTAMINATION	Oil Changed		Client Info		Changed	Changed	
Fuel	Sample Status				NORMAL	NORMAL	
Water Glycol WC Method WC Method >0.2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 41 23 Chromium ppm ASTM D5185m >20 1 <1 Nickel ppm ASTM D5185m >4 <1 0 Silver ppm ASTM D5185m >4 <1 0 Aluminum ppm ASTM D5185m >40 2 -1 Aluminum ppm ASTM D5185m >40 2 -1 Copper ppm ASTM D5185m >40 2 -1 Copper ppm ASTM D5185m >15 2 -1 Vanadium ppm ASTM D5185m <1 -1 -1 Cadmium ppm ASTM D5185m 0 0 <td>CONTAMINAT</td> <td>ΓΙΟΝ</td> <td>method</td> <td>limit/base</td> <td>current</td> <td>history1</td> <td>history2</td>	CONTAMINAT	ΓΙΟΝ	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0	<1.0	
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	
Chromium	Glycol		WC Method		NEG	NEG	
Chromium	WEAR METAL	_S	method	limit/base	current	history1	history2
Silver	ron	ppm	ASTM D5185m	>100	41	23	
Titanium	Chromium	ppm	ASTM D5185m	>20	1	<1	
Silver	Nickel	ppm	ASTM D5185m	>4	<1	0	
Aluminum	Titanium	ppm	ASTM D5185m		4	7	
Lead	Silver	ppm	ASTM D5185m	>3	0	0	
Copper	Aluminum	ppm	ASTM D5185m	>20	4	2	
Tin	_ead	ppm	ASTM D5185m	>40	2	<1	
Standard	Copper	ppm	ASTM D5185m	>330	6	5	
Vanadium ppm ASTM D5185m <1 <1 Cadmium ppm ASTM D5185m <1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 6 13 Barium ppm ASTM D5185m 0 0 0 Molybdenum ppm ASTM D5185m 50 65 59 Manganese ppm ASTM D5185m 50 65 59 Manganesium ppm ASTM D5185m 950 997 966 Calcium ppm ASTM D5185m 995 1103 1163 Phosphorus ppm ASTM D5185m 995 1103 1163 Zinc ppm ASTM D5185m 2600 3243 3506 CONTAMINANTS method limit/base current history1 <td></td> <td>ppm</td> <td>ASTM D5185m</td> <td>>15</td> <td>2</td> <td><1</td> <td></td>		ppm	ASTM D5185m	>15	2	<1	
ADDITIVES	Vanadium		ASTM D5185m		<1	<1	
Boron ppm ASTM D5185m 2 6 13	Cadmium	ppm	ASTM D5185m		<1	0	
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 65 59 Manganese ppm ASTM D5185m 0 1 <1	Boron	ppm	ASTM D5185m	2	6	13	
Manganese ppm ASTM D5185m 0 1 <1 Magnesium ppm ASTM D5185m 950 997 966 Calcium ppm ASTM D5185m 1050 1198 1196 Phosphorus ppm ASTM D5185m 995 1103 1163 Zinc ppm ASTM D5185m 1180 1322 1314 Sulfur ppm ASTM D5185m 2600 3243 3506 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 4 Sodium ppm ASTM D5185m >25 8 1 Potassium ppm ASTM D5185m >20 6 <1	Barium		ASTM D5185m	0	0	0	
Manganese ppm ASTM D5185m 0 1 <1 Magnesium ppm ASTM D5185m 950 997 966 Calcium ppm ASTM D5185m 1050 1198 1196 Phosphorus ppm ASTM D5185m 995 1103 1163 Zinc ppm ASTM D5185m 1180 1322 1314 Sulfur ppm ASTM D5185m 2600 3243 3506 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >25 8 4 Solicon ppm ASTM D5185m >25 8 4 Potassium ppm ASTM D5185m >20 6 <1	Molybdenum		ASTM D5185m	50	65	59	
Magnesium ppm ASTM D5185m 950 997 966 Calcium ppm ASTM D5185m 1050 1198 1196 Phosphorus ppm ASTM D5185m 995 1103 1163 Zinc ppm ASTM D5185m 1180 1322 1314 Sulfur ppm ASTM D5185m 2600 3243 3506 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 4 Sodium ppm ASTM D5185m >20 6 <1	-		ASTM D5185m	0	1	<1	
Calcium ppm ASTM D5185m 1050 1198 1196 Phosphorus ppm ASTM D5185m 995 1103 1163 Zinc ppm ASTM D5185m 1180 1322 1314 Sulfur ppm ASTM D5185m 2600 3243 3506 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >25 8 4 Solicon ppm ASTM D5185m >20 6 <1	•				997	966	
Phosphorus ppm ASTM D5185m 995 1103 1163 Zinc ppm ASTM D5185m 1180 1322 1314 Sulfur ppm ASTM D5185m 2600 3243 3506 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 4 Sodium ppm ASTM D5185m >20 6 <1	_		ASTM D5185m	1050	1198	1196	
Zinc ppm ASTM D5185m 1180 1322 1314 Sulfur ppm ASTM D5185m 2600 3243 3506 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 4 Sodium ppm ASTM D5185m 8 1 Potassium ppm ASTM D5185m >20 6 <1 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 >3 0.8 0.2 Nitration Abs/cm *ASTM D7624 >20 10.9 5.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.9 17.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.6 13.9				995			
Sulfur ppm ASTM D5185m 2600 3243 3506 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 4 Sodium ppm ASTM D5185m >20 6 <1 Potassium ppm ASTM D5185m >20 6 <1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.8 0.2 Sulfation Abs/cm *ASTM D7624 >20 10.9 5.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.6 13.9							
Solition ppm ASTM D5185m >25 8 4					-		
Sodium ppm ASTM D5185m 8 1	CONTAMINAN	NTS	method	limit/base	current	history1	history2
Sodium ppm ASTM D5185m 8 1	Silicon	ppm	ASTM D5185m	>25	8	4	
Potassium ppm ASTM D5185m >20 6 <1 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.8 0.2 Nitration Abs/cm *ASTM D7624 >20 10.9 5.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.9 17.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.6 13.9							
Soot % % *ASTM D7844 >3 0.8 0.2 Nitration Abs/cm *ASTM D7624 >20 10.9 5.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.9 17.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.6 13.9				>20		<1	
Nitration Abs/cm *ASTM D7624 >20 10.9 5.8 Sulfation Abs/.1mm *ASTM D7415 >30 19.9 17.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.6 13.9	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 19.9 17.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.6 13.9	Soot %	%	*ASTM D7844	>3	0.8	0.2	
Sulfation Abs/.1mm *ASTM D7415 >30 19.9 17.6 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 17.6 13.9	Nitration	Abs/cm	*ASTM D7624	>20	10.9	5.8	
Oxidation		Abs/.1mm					
	FLUID DEGRA	DATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	17.6	13.9	
	Base Number (BN)	mg KOH/g	ASTM D2896	-	8.1	9.2	



OIL ANALYSIS REPORT







Certificate 12367

Laboratory Sample No.

: PCA0110687 Lab Number : 06140893 Unique Number : 10965701

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 08 Apr 2024 **Tested**

: 08 Apr 2024 Diagnosed : 08 Apr 2024 - Wes Davis

Test Package : MOB 1 (Additional Tests: 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 #123

66 KELLER AVENUE LANCASTER, PA US 17601

Contact: RON ROBERTS rroberts@millertransgroup.com T: (717)945-6205

F: (717)945-5818

Report Id: MILLAN [WUSCAR] 06140893 (Generated: 04/08/2024 18:39:17) Rev: 1

Contact/Location: RON ROBERTS - MILLAN