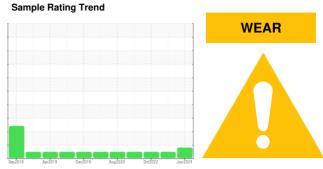


OIL ANALYSIS REPORT

COOPER ELECTRIC HINO 388518

Diesel Engine

PETRO CANADA DURON SHP 10W30 (16 QTS)



DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

The aluminum level is abnormal. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the

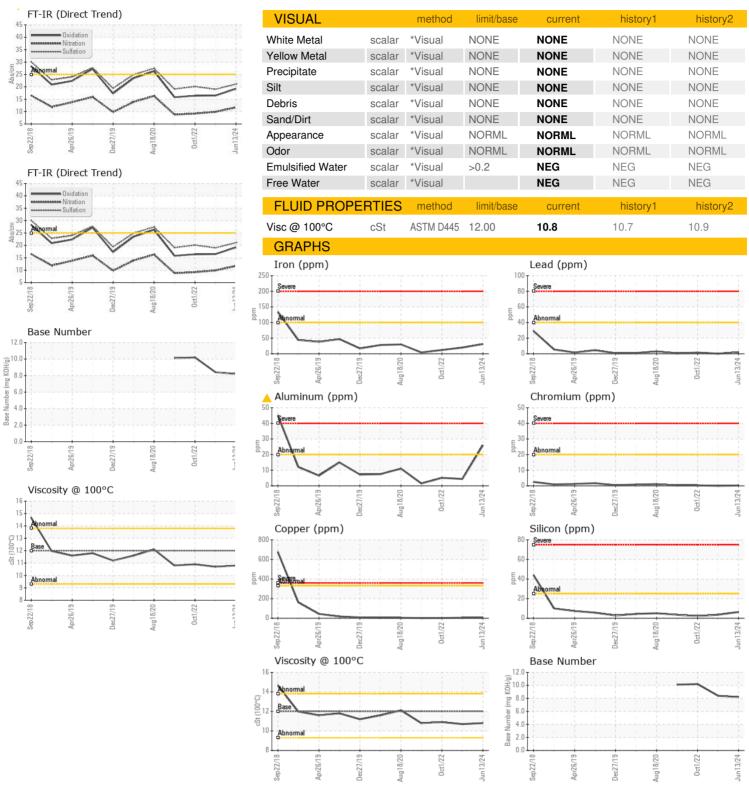
Fluid Condition

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

Sample Number Client Info PCA0079238 PCA0110167 PCA00770 PCA00770	(13)		Sep.2018	Apr2019 Dec2019	Aug2020 Oct2022	Junzuz4	
Client Info 13 Jun 2024 29 Jan 2024 01 Oct 202	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age mis Client Info 281237 263669 217283 201 Age mis Client Info 10000 200000 12316 Changed Changed	Sample Number		Client Info		PCA0079238	PCA0110167	PCA007705
Oil Age mls Client Info 10000 2000 12316 Oil Changed Sample Status Client Info Changed ABNORMAL Changed Changed NORMAL Changed NORMAL Changed NORMAL Changed NORMAL Changed NORMAL NO	Sample Date		Client Info		13 Jun 2024	29 Jan 2024	01 Oct 2022
Coli Changed Client Info Changed ABNORMAL NORMAL NORMAL NORMAL	Machine Age	mls	Client Info		281237	263669	217283
CONTAMINATION	Oil Age	mls	Client Info		10000	20000	12316
CONTAMINATION method limit/base current history1 history2 history3 history3 history3 history3 history4 history4 history4 history4 history4 history5 histo	Oil Changed		Client Info		Changed	Changed	Changed
Fuel WC Method >5	-						
Water Glycol WC Method >0.2 NEG NEG NEG NEG NEG NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >100 31 20 12 Chromium ppm ASTM D5185m >20 <1	CONTAMINATI	ON	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0	<1.0	<1.0
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
Chromium	Glycol		WC Method		NEG	NEG	NEG
Chromium	WEAR METALS	S	method	limit/base	current	history1	history2
Nickel	ron	ppm	ASTM D5185m	>100	31	20	12
Description	Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Description	Nickel		ASTM D5185m	>4	0	0	0
Saliver	Γitanium		ASTM D5185m		0	0	0
Aluminum				>3	0		0
Deed	Aluminum			>20		4	5
Description							
Antimony							
Antimony					•		
Anadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history3 Boron ppm ASTM D5185m 2 7 14 17 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 2 1 <1 Magnesium ppm ASTM D5185m 0 2 1 <1 Magnesium ppm ASTM D5185m 950 1029 876 883 Calcium ppm ASTM D5185m 950 1029 876 883 Calcium ppm ASTM D5185m 995 1093 1071 982 Zinc ppm ASTM D5185m 995 1093 1071 982 Zinc ppm ASTM D5185m 2600 3618 3630 3320<				>10			
Deciding	•						
ADDITIVES method limit/base current history1 history3 Boron ppm ASTM D5185m 2 7 14 17 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 73 77 75 Manganese ppm ASTM D5185m 0 2 1 <1							
Boron ppm ASTM D5185m 2 7 14 17		ррш		limit/hase			
Barium		nnm					
Molybdenum ppm ASTM D5185m 50 73 77 75 Manganese ppm ASTM D5185m 0 2 1 <1 Magnesium ppm ASTM D5185m 950 1029 876 883 Calcium ppm ASTM D5185m 1050 1194 1235 1237 Phosphorus ppm ASTM D5185m 995 1093 1071 982 Zinc ppm ASTM D5185m 995 1093 1071 982 Zinc ppm ASTM D5185m 2600 3618 3630 3320 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 6 4 2 Sodium ppm ASTM D5185m >20 13 8 5 4 Potassium ppm ASTM D5185m >20 13 8 2 INFRA-RED method					-		
Manganese ppm ASTM D5185m 0 2 1 <1 Magnesium ppm ASTM D5185m 950 1029 876 883 Calcium ppm ASTM D5185m 1050 1194 1235 1237 Phosphorus ppm ASTM D5185m 995 1093 1071 982 Zinc ppm ASTM D5185m 1180 1357 1269 1252 Sulfur ppm ASTM D5185m 2600 3618 3630 3320 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 6 4 2 Sodium ppm ASTM D5185m >20 13 8 2 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.9 0.6 0.5 Sulfation Abs/cm *ASTM D7415<							
Magnesium ppm ASTM D5185m 950 1029 876 883 Calcium ppm ASTM D5185m 1050 1194 1235 1237 Phosphorus ppm ASTM D5185m 995 1093 1071 982 Zinc ppm ASTM D5185m 1180 1357 1269 1252 Sulfur ppm ASTM D5185m 2600 3618 3630 3320 CONTAMINANTS method limit/base current history1 history1 Silicon ppm ASTM D5185m >25 6 4 2 Sodium ppm ASTM D5185m >20 13 8 2 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.9 0.6 0.5 Nitration Abs/cm *ASTM D7624 >20 11.7 9.9 9.2 Sulfation Abs/.1mm <t< td=""><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td></t<>					_		
Calcium ppm ASTM D5185m 1050 1194 1235 1237 Phosphorus ppm ASTM D5185m 995 1093 1071 982 Zinc ppm ASTM D5185m 1180 1357 1269 1252 Sulfur ppm ASTM D5185m 2600 3618 3630 3320 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 6 4 2 Sodium ppm ASTM D5185m 8 5 4 Potassium ppm ASTM D5185m >20 13 8 2 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.9 0.6 0.5 Nitration Abs/.1mm *ASTM D7415 >30 21.1 19.0 20.1 FLUID DEGRADATION method limit	-				_		
Phosphorus ppm ASTM D5185m 995 1093 1071 982 Zinc ppm ASTM D5185m 1180 1357 1269 1252 Sulfur ppm ASTM D5185m 2600 3618 3630 3320 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 6 4 2 Sodium ppm ASTM D5185m 8 5 4 Potassium ppm ASTM D5185m >20 13 8 2 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.9 0.6 0.5 Nitration Abs/cm *ASTM D7624 >20 11.7 9.9 9.2 Sulfation Abs/.1mm *ASTM D7415 >30 21.1 19.0 20.1 FLUID DEGRADATION method lim							
Zinc ppm ASTM D5185m 1180 1357 1269 1252 Sulfur ppm ASTM D5185m 2600 3618 3630 3320 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 6 4 2 Sodium ppm ASTM D5185m 8 5 4 Potassium ppm ASTM D5185m >20 13 8 2 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.9 0.6 0.5 Nitration Abs/cm *ASTM D7624 >20 11.7 9.9 9.2 Sulfation Abs/.1mm *ASTM D7415 >30 21.1 19.0 20.1 EUID DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414<							
Sulfur ppm ASTM D5185m 2600 3618 3630 3320 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >25 6 4 2 Sodium ppm ASTM D5185m 8 5 4 Potassium ppm ASTM D5185m >20 13 8 2 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.9 0.6 0.5 Nitration Abs/cm *ASTM D7624 >20 11.7 9.9 9.2 Sulfation Abs/.1mm *ASTM D7415 >30 21.1 19.0 20.1 FLUID DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414 >25 19.2 16.5 16.4	·						
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 6 4 2 Sodium ppm ASTM D5185m 8 5 4 Potassium ppm ASTM D5185m >20 13 8 2 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.9 0.6 0.5 Nitration Abs/cm *ASTM D7624 >20 11.7 9.9 9.2 Sulfation Abs/.1mm *ASTM D7415 >30 21.1 19.0 20.1 FLUID DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414 >25 19.2 16.5 16.4							
Solicon ppm ASTM D5185m >25 6 4 2 Sodium ppm ASTM D5185m 8 5 4 Potassium ppm ASTM D5185m >20 13 8 2 INFRA-RED method limit/base current history1 history Goot % % *ASTM D7844 >3 0.9 0.6 0.5 Nitration Abs/cm *ASTM D7624 >20 11.7 9.9 9.2 Sulfation Abs/.1mm *ASTM D7415 >30 21.1 19.0 20.1 FLUID DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414 >25 19.2 16.5 16.4	Jaa.						
Sodium ppm ASTM D5185m 8 5 4 Potassium ppm ASTM D5185m >20 13 8 2 INFRA-RED method limit/base current history1 history1 Soot % % *ASTM D7844 >3 0.9 0.6 0.5 Nitration Abs/cm *ASTM D7624 >20 11.7 9.9 9.2 Sulfation Abs/.1mm *ASTM D7415 >30 21.1 19.0 20.1 FLUID DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414 >25 19.2 16.5 16.4						,	
Potassium ppm ASTM D5185m >20 13 8 2 INFRA-RED method limit/base current history1 history Soot % % *ASTM D7844 >3 0.9 0.6 0.5 Nitration Abs/cm *ASTM D7624 >20 11.7 9.9 9.2 Sulfation Abs/.1mm *ASTM D7415 >30 21.1 19.0 20.1 FLUID DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414 >25 19.2 16.5 16.4				>25			
INFRA-RED				0.0			
Soot % % *ASTM D7844 >3 0.9 0.6 0.5 Nitration Abs/cm *ASTM D7624 >20 11.7 9.9 9.2 Sulfation Abs/.1mm *ASTM D7415 >30 21.1 19.0 20.1 FLUID DEGRADATION method limit/base current history1 history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.2 16.5 16.4		ppm			13	8	2
Nitration Abs/cm *ASTM D7624 >20 11.7 9.9 9.2 Sulfation Abs/.1mm *ASTM D7615 >30 21.1 19.0 20.1 FLUID DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414 >25 19.2 16.5 16.4	INFRA-RED			limit/base			history2
Sulfation Abs/.1mm *ASTM D7415 >30 21.1 19.0 20.1 FLUID DEGRADATION method limit/base current history1 history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 19.2 16.5 16.4							
FLUID DEGRADATION method limit/base current history1 history Dxidation Abs/.1mm *ASTM D7414 >25 19.2 16.5 16.4	Vitration	Abs/cm		>20	11.7	9.9	9.2
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.1	19.0	20.1
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 8.2 8.4 10.2	Oxidation	Abs/.1mm	*ASTM D7414	>25	19.2	16.5	16.4
	Base Number (BN)	mg KOH/g	ASTM D2896		8.2	8.4	10.2



OIL ANALYSIS REPORT







Certificate 12367

Laboratory Sample No.

Lab Number : 06220694 Unique Number : 11098891

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0079238

Received : 26 Jun 2024 **Tested** : 27 Jun 2024 Diagnosed

: 27 Jun 2024 - Angela Borella 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 #121

107 HOW LANE NEW BRUNSWICK, NJ US 08901

Contact: Anthony Cursi acursi@millertransgroup.com

T: (732)358-4027 F: (732)400-8475

Report Id: MILNEW [WUSCAR] 06220694 (Generated: 06/27/2024 16:31:44) Rev: 1

Contact/Location: Anthony Cursi - MILNEW