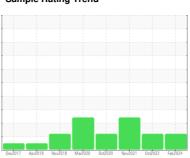


OIL ANALYSIS REPORT

Sample Rating Trend









WOLVO L30G L30 (S/N 220339)

Component **Diesel Engine**

PETRO CANADA DURON HP

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the

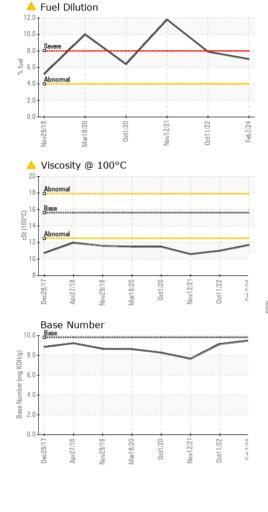
Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

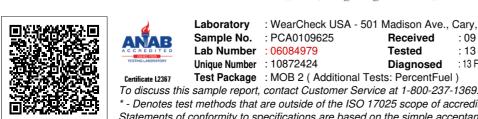
ON HP 15W40 (3	3 GAL)	Dec2017	Apr2018 Nov2018 Mar20	20 Oct2020 Nov2021 Oct2022	Feb2024	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0109625	PCA0072127	WC0570178
Sample Date		Client Info		07 Feb 2024	11 Oct 2022	12 Nov 2021
Machine Age	hrs	Client Info		9714	3329	2842
Oil Age	hrs	Client Info		0	450	900
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	SEVERE
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	.S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	0	11	14
Chromium	ppm	ASTM D5185m	>6	0	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	1	2	2
Lead	ppm	ASTM D5185m	>95	1	0	<1
Copper	ppm	ASTM D5185m	>85	<1	4	14
Γin	ppm	ASTM D5185m	>9	<1	<1	<1
Antimony	ppm	ASTM D5185m				0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		13	5	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		55	56	62
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m		802	923	982
Calcium	ppm	ASTM D5185m		902	1076	1030
Phosphorus	ppm	ASTM D5185m		869	959	1038
Zinc	ppm	ASTM D5185m		1075	1221	1216
Sulfur	ppm	ASTM D5185m		2665	3310	2768
CONTAMINAN	ITS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1	5	6
Sodium	ppm	ASTM D5185m		<1	2	1
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Fuel	%	ASTM D3524	>4.0	^ 7.0	▲ 7.9	11.8
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		1	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.7	9.5	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	20.9	20.7
FLUID DEGRAI	DATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.9	18.8	19.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	9.49	9.13	7.65
(214)	9		3.0	JJ	00	



OIL ANALYSIS REPORT



Mhite Metal scalar *Visual NONE NONE NONE NONE NONE Mellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML NORML Debris scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG FLUID PROPERTIES method limit/base current history1 history2							
Visual None	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar *Visual NONE NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silt scalar *Visual NONE NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Debris scalar *Visual NONE NONE NONE NONE NONE Stand/Dirt scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt scalar "Visual NONE NONE NONE NONE NONE Appearance scalar "Visual NORML NO	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance scalar *Visual NORML NORM	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Dodor scalar *Visual NORML NORML NORML NORML NORML Final Scalar *Visual >0.1 NEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Water scalar *Visual >0.1 NEG	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
FLUID PROPERTIES method limit/base current history1 history2 //isc @ 100°C cSt ASTM D445 15.6 11.7 11.0 10.6 GRAPHS Iron (ppm)	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
FLUID PROPERTIES method limit/base current history1 history2 // isc @ 100°C	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
### ### ### ### ### ### ### ### ### ##	Free Water	scalar	*Visual		NEG	NEG	NEG
Chromium (ppm)	FLUID PROPE	ERTIES	method	limit/base	current	history1	history2
Chromium (ppm)	Visc @ 100°C	cSt	ASTM D445	15.6	<u> </u>	<u> </u>	△ 10.6
Aluminum (ppm) Severe 150 Abnormal Aluminum (ppm) Aluminum (ppm) Severe 150 Abnormal Aluminum (ppm) Aluminum (pp	GRAPHS						
Pec28/17 Apri27/18 A				20			
April 222 1722	Severe			20	Severe		
Pec28/17 Apri27/18 Mar18/20 Oct1/20 Oct1/20 Mar18/20 Mar18/20 Oct1/20 Mar18/20 Oct1/20 Oct1/20 Mar18/20 Oct1/20 Oct1)			15	0+		
Pec28/17 Apri27/18 Mart 8/20 Oct 1/22 Mart 8/20 Oct 1/22	Abnormal	-		튎10	0 - Abnormal		
Pec28/17 Apri27/18 Mar18/20 Oct1/20 Oct1/20 Dec28/17 Apri27/18 Mar18/20 Oct1/20	1			5	0		
Pec28/17 Apri27/18 Mar18/20 Oct1/20 Oct1/20 Dec28/17 Apri27/18 Mar18/20 Oct1/20					0		
Aluminum (ppm) Chromium (ppm) Severe Abnormal Abnormal Abnormal Abnormal Abnormal Abnormal According to the first of the first	9/18	8/20 -	2/21			8/20 -	ov12/21-
Pec28/17 Apri27/18 Mari 18/20 Oct 11/22 Dec28/17 Feb 7/24 Feb 7/24 Feb 7/24 Mari 18/20 Oct 11/22 Nov 29/18 Mari 18/20 Oct 11/22 Oct 11/22	Dec2 Apr2 Nov2	Mar1 Oct	Nov1 Oct1	是	Dec2 Apr2	Novz Marl	Nov1 Oct1
Perces Nov.29.178				1		ppm)	
Dec28/17 Apr27/18 Nov23/18 Nov12/21 Feb7/24 Feb7/24 Mar18/20 Oct11/22 Oct17/22 Oct17/22 Oct17/22 Oct17/22 Oct17/22	Severe						
Apr27/18 Nov29/18 Nov12/21 Feb7/24 Par27/18 Oct11/22 Oct17/29 Nov29/18 Nov29/18 Nov29/18 Oct17/20 Oct17/20 Oct17/20	1						
Dec28/17 Apr27/18 Nov29/18 Nov12/21 Peb7/24 Feb7/24 Nov29/18 Nov29/18 Nov29/18 Oct17/20 Oct17/20 Oct17/20 Oct17/20	Abnormal			mdd	Abnormal		
Dec28/17 Apri27/18 Nov28/18 Nov12/21 Nov12/21 Dec28/17 Apri27/18 Nov29/18 Nov29/18 Nov12/21 Nov12/21	,				5		
Dec28/17 Apri27/18 Nov28/18 Nov12/21 Nov12/21 Dec28/17 Apri27/18 Nov29/18 Nov29/18 Nov12/21 Nov12/21							
		/20-	2/21	/24		///8	1/21-
	Dec28 Apr27 Vov29	Mar18 Oct1	Nov12	Feb7	Dec28	Mari 8 Mari 8	Nov12/21
	_	_					



Laboratory Sample No.

Lab Number : 06084979 Unique Number : 10872424

: PCA0109625

200

E 100

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 09 Feb 2024 : 13 Feb 2024 **Tested**

Diagnosed Test Package: MOB 2 (Additional Tests: PercentFuel)

Oct11/22

Nov12/21

Feb7/24

: 13 Feb 2024 - Jonathan Hester

Base Number

10.0 (mg KOH/g) 8.0

0.0

Base Number 4.0

> US 02189 Contact: JOHN LANG gnalj1970@comcast.net T: (617)435-7199 F: (781)337-4150

* - 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)

Viscosity @ 100°C

Submitted By: JOHN LANG

J F PRICE

611 PLEASANT ST

E WEYMOUTH, MA