

OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY



VOLVO A25C HT-4 (S/N 5350V70492)

Component

Diesel Engine

PETRO CANADA DURON HP 15W40 (7 GAL)

DIAGNOSIS

Recommendation

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 no indication of any contamination in the oil.

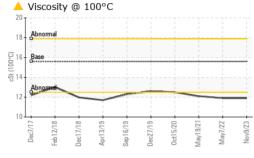
Fluid Condition

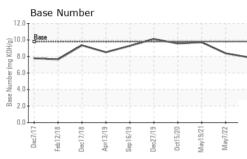
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

ON HP 15W40 (7	,	UeczU17 Febz	018 Dec2018 Apr2019 Sep2		:UZZ N0VZUZ3	
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0109609	PCA0059480	PCA004117
Sample Date		Client Info		09 Nov 2023	07 May 2022	19 May 202
Machine Age	hrs	Client Info		19532	18877	18219
Oil Age	hrs	Client Info		655	658	450
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	ATTENTION	ATTENTION
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>6.0	<1.0	<1.0	0.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>100	19	21	16
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	1	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	3	4	4
Lead	ppm	ASTM D5185m	>40	4	4	2
Copper	ppm	ASTM D5185m	>330	0	<1	2
Γin	ppm	ASTM D5185m	>15	<1	<1	<1
Antimony	ppm	ASTM D5185m				0
√anadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		6	10	15
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		65	62	63
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		979	927	915
Calcium	ppm	ASTM D5185m		4446	1058	1048
Phosphorus	1-1-			1113	1000	1040
•	mqq	ASTM D5185m		-	1026	1046
Zinc	ppm			1094	1026	1009
Zinc Sulfur	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		-		
	ppm	ASTM D5185m	limit/base	1094 1308	1026 1206	1009 1206 2582
Sulfur	ppm	ASTM D5185m ASTM D5185m method	limit/base >25	1094 1308 3168	1026 1206 2959	1009 1206 2582
Sulfur CONTAMINAN	ppm ppm	ASTM D5185m ASTM D5185m method		1094 1308 3168 current	1026 1206 2959 history1	1009 1206 2582 history2
Sulfur CONTAMINAN Silicon	ppm ppm ITS ppm	ASTM D5185m ASTM D5185m method ASTM D5185m	>25	1094 1308 3168 current	1026 1206 2959 history1	1009 1206 2582 history2
Sulfur CONTAMINAN Silicon Sodium	ppm ppm ITS ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	>25	1094 1308 3168 current 7	1026 1206 2959 history1 7	1009 1206 2582 history2 6 2 <1
Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ITS ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	>25 >20	1094 1308 3168 current 7 1	1026 1206 2959 history1 7 3	1009 1206 2582 history2 6 2 <1
Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ITS ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method	>25 >20 limit/base	1094 1308 3168 current 7 1 <1	1026 1206 2959 history1 7 3 2 history1	1009 1206 2582 history2 6 2 <1
Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm lTS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844	>25 >20 limit/base >3 >20	1094 1308 3168 current 7 1 <1 current 0.3	1026 1206 2959 history1 7 3 2 history1 0.2	1009 1206 2582 history2 6 2 <1 history2
Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ITS ppm ppm ppm ppm Abs/.1mm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	>25 >20 limit/base >3 >20	1094 1308 3168 current 7 1 <1 current 0.3 6.9	1026 1206 2959 history1 7 3 2 history1 0.2 7.7	1009 1206 2582 history2 6 2 <1 history2 0.2 7 19.1
Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ITS ppm ppm ppm ppm Abs/.1mm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	>25 >20 limit/base >3 >20 >30	1094 1308 3168 current 7 1 <1 current 0.3 6.9 18.5	1026 1206 2959 history1 7 3 2 history1 0.2 7.7 18.8	1009 1206 2582 history2 6 2 <1 history2 0.2



OIL ANALYSIS REPORT

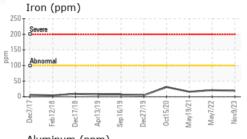


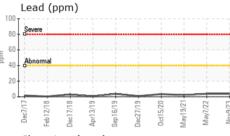


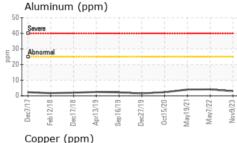
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

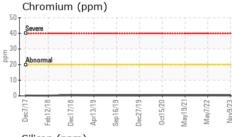
I LOID I HOI	LITTLO	mounoa	min base	ourront	Thotoly I	Thotol y Z
Visc @ 100°C	cSt	ASTM D445	15.6	▲ 11.9	<u> 11.9</u>	▲ 12.1

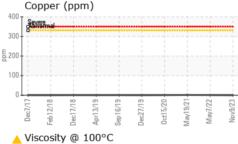
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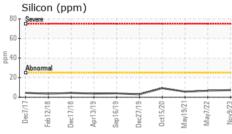


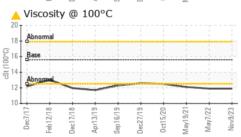


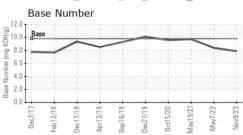














Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** Test Package : MOB 2

: PCA0109609 : 06031798 : 10781589

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 11 Dec 2023 : 14 Dec 2023 Diagnosed Diagnostician : Sean Felton

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)

J F PRICE

611 PLEASANT ST E WEYMOUTH, MA US 02189

Contact: JOHN LANG gnalj1970@comcast.net T: (617)435-7199

Submitted By: JOHN LANG

F: (781)337-4150