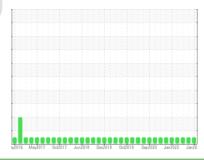


OIL ANALYSIS REPORT

OKLAHOMA/105/EG - TRUCK-ON-HWY-HEAVY DUTY 08.102 [OKLAHOMA^105^EG - TRUCK-ON-HWY-HEAVY DUTY]

Diesel Engine

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)



Sample Rating Trend



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

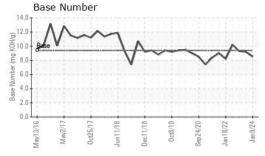
Fluid Condition

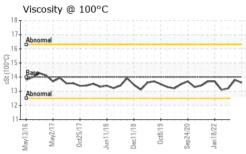
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0874034	WC0833998	WC0746199
Sample Date		Client Info		09 Jan 2024	17 Aug 2023	04 Jan 2023
Machine Age	hrs	Client Info		13475	12992	12460
Oil Age	hrs	Client Info		483	532	500
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	V	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	8	9	13
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	5	3
Lead	ppm	ASTM D5185m	>45	<1	0	<1
Copper	ppm	ASTM D5185m	>85	<1	<1	2
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
				•		
ADDITIVES	''	method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base			history2
		ASTM D5185m		current	history1	
Boron	ppm	ASTM D5185m	0	current 43	history1	33
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m	0	current 43 0	history1 44 0	33 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	current 43 0 39	history1 44 0 38	33 0 41
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 43 0 39 <1	history1 44 0 38 <1	33 0 41 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 43 0 39 <1 502 1918 876	history1 44 0 38 <1 484	33 0 41 <1 439
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 43 0 39 <1 502 1918	history1 44 0 38 <1 484 2193	33 0 41 <1 439 2006
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 43 0 39 <1 502 1918 876	history1 44 0 38 <1 484 2193 933	33 0 41 <1 439 2006 908
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 43 0 39 <1 502 1918 876 1038	history1 44 0 38 <1 484 2193 933 1133	33 0 41 <1 439 2006 908 1114
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	current 43 0 39 <1 502 1918 876 1038 3017	history1 44 0 38 <1 484 2193 933 1133 4142 history1 6	33 0 41 <1 439 2006 908 1114 3838
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0	current 43 0 39 <1 502 1918 876 1038 3017 current	history1 44 0 38 <1 484 2193 933 1133 4142 history1	33 0 41 <1 439 2006 908 1114 3838 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0	current 43 0 39 <1 502 1918 876 1038 3017 current 7	history1 44 0 38 <1 484 2193 933 1133 4142 history1 6	33 0 41 <1 439 2006 908 1114 3838 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >30	current 43 0 39 <1 502 1918 876 1038 3017 current 7 2	history1 44 0 38 <1 484 2193 933 1133 4142 history1 6 5	33 0 41 <1 439 2006 908 1114 3838 history2 6 13
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >30 >20	current 43 0 39 <1 502 1918 876 1038 3017 current 7 2 2	history1 44 0 38 <1 484 2193 933 1133 4142 history1 6 5 4	33 0 41 <1 439 2006 908 1114 3838 history2 6 13 8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	0 0 0 0 limit/base >30 >20 limit/base	current 43 0 39 <1 502 1918 876 1038 3017 current 7 2 current	history1 44 0 38 <1 484 2193 933 1133 4142 history1 6 5 4	33 0 41 <1 439 2006 908 1114 3838 history2 6 13 8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0 limit/base >30 >20 limit/base	current 43 0 39 <1 502 1918 876 1038 3017 current 7 2 current 0.3	history1 44 0 38 <1 484 2193 933 1133 4142 history1 6 5 4 history1 0.2	33 0 41 <1 439 2006 908 1114 3838 history2 6 13 8 history2 0.3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0 limit/base >30 >20 limit/base >3 >20	current 43 0 39 <1 502 1918 876 1038 3017 current 7 2 2 current 0.3 9.4	history1 44 0 38 <1 484 2193 933 1133 4142 history1 6 5 4 history1 0.2 9.1	33 0 41 <1 439 2006 908 1114 3838 history2 6 13 8 history2 0.3 9.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method *ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	0 0 0 0 0 limit/base >30 >20 limit/base >3 >20 >30	current 43 0 39 <1 502 1918 876 1038 3017 current 7 2 current 0.3 9.4 23.2	history1 44 0 38 <1 484 2193 933 1133 4142 history1 6 5 4 history1 0.2 9.1 22.6	33 0 41 <1 439 2006 908 1114 3838 history2 6 13 8 history2 0.3 9.4 23.2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7624 *ASTM D7624 *ASTM D7415 method	0 0 0 0 0 limit/base >30 >20 limit/base >3 >20 >30 	current 43 0 39 <1 502 1918 876 1038 3017 current 7 2 2 current 0.3 9.4 23.2 current	history1 44 0 38 <1 484 2193 933 1133 4142 history1 6 5 4 history1 0.2 9.1 22.6 history1	33 0 41 <1 439 2006 908 1114 3838 history2 6 13 8 history2 0.3 9.4 23.2 history2



OIL ANALYSIS REPORT

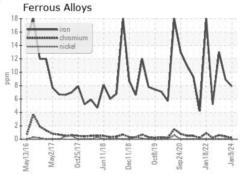


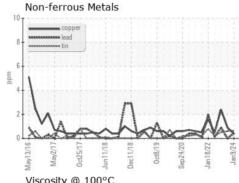


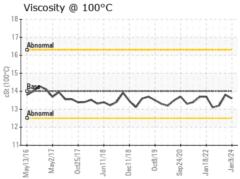
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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

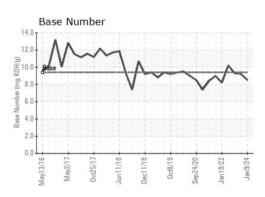
FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	14	13.6	13.8	13.2

GRAPHS













Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: WC0874034 : 06060879 : 10832261

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

: 17 Jan 2024 Diagnostician : Wes Davis

: 16 Jan 2024

Test Package : CONST (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)

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F: x: