

OIL ANALYSIS REPORT

NORMAL



STERLING HUB GEN 02 - 3010292595

Component

Diesel Engine

NAPA Motor Oil 15W40 (--- GAL)

Recommendation

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

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the

Fluid Condition

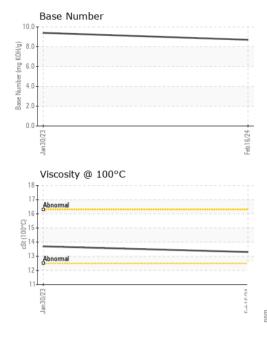
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

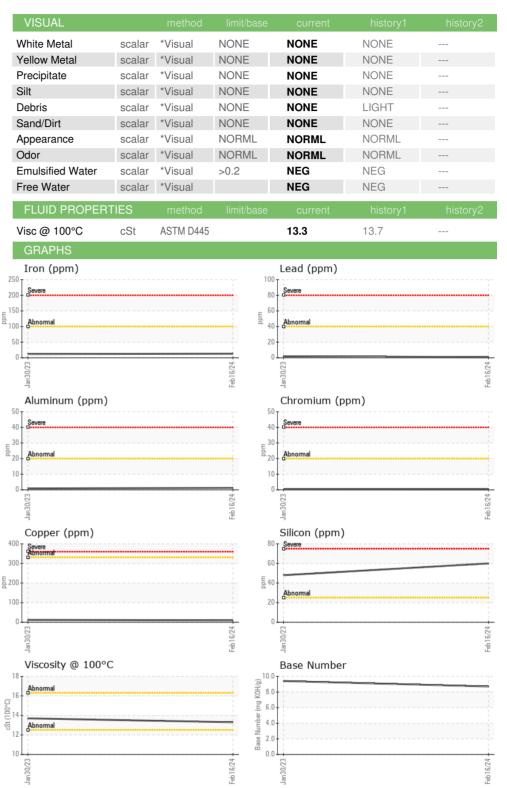
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Jan 2023	Feb 2024	

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0894357	WC0771565	
Sample Date		Client Info		16 Feb 2024	30 Jan 2023	
Machine Age	hrs	Client Info		59	27	
Oil Age	hrs	Client Info		25	27	
Oil Changed		Client Info		Not Changd	Not Changd	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	VI.	method	limit/base	current	history1	history2
Fuel	N .	WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	<1.0 NEG	NEG	
		WC Method	>0.2			
Glycol		vvC ivietnod		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	13	12	
Chromium	ppm	ASTM D5185m	>20	<1	<1	
Nickel	ppm	ASTM D5185m	>4	0	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	1	<1	
Lead	ppm	ASTM D5185m	>40	<1	2	
Copper	ppm	ASTM D5185m	>330	10	12	
Tin	ppm	ASTM D5185m	>15	<1	<1	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current	history1	history2
	ppm		limit/base		•	
Boron		ASTM D5185m	limit/base	17	29	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	17 0	29	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	17 0 31	29 0 48	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	17 0 31 2	29 0 48 2	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	17 0 31 2 232	29 0 48 2 348	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	17 0 31 2 232 2074	29 0 48 2 348 1753	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	17 0 31 2 232 2074 994	29 0 48 2 348 1753 942	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	17 0 31 2 232 2074 994 1131	29 0 48 2 348 1753 942 1094	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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	limit/base	17 0 31 2 232 2074 994 1131 3673	29 0 48 2 348 1753 942 1094 3470	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	17 0 31 2 232 2074 994 1131 3673	29 0 48 2 348 1753 942 1094 3470 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	17 0 31 2 232 2074 994 1131 3673 current	29 0 48 2 348 1753 942 1094 3470 history1 48	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	17 0 31 2 232 2074 994 1131 3673 current 60 2	29 0 48 2 348 1753 942 1094 3470 history1 48 3	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >25 >20 limit/base	17 0 31 2 232 2074 994 1131 3673 current 60 2 <1	29 0 48 2 348 1753 942 1094 3470 history1 48 3 1	history2
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 *ASTM D5185m	limit/base >25 >20 limit/base >3	17 0 31 2 232 2074 994 1131 3673 current 60 2 <1 current 0.2	29 0 48 2 348 1753 942 1094 3470 history1 48 3 1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >25 >20 limit/base >3 >20	17 0 31 2 232 2074 994 1131 3673 current 60 2 <1	29 0 48 2 348 1753 942 1094 3470 history1 48 3 1	history2 history2
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 ASTM D7844 *ASTM D7624 *ASTM D76145	limit/base >25 >20 limit/base >3 >20 >30	17 0 31 2 232 2074 994 1131 3673 current 60 2 <1 current 0.2 5.2	29 0 48 2 348 1753 942 1094 3470 history1 48 3 1 history1 0.1 4.7 20.2	history2 history2
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 method *ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7844 *ASTM D7844	limit/base >25 >20 limit/base >3 >20 >30 limit/base	17 0 31 2 232 2074 994 1131 3673 current 60 2 <1 current 0.2 5.2 18.0 current	29 0 48 2 348 1753 942 1094 3470 history1 48 3 1 history1 0.1 4.7 20.2 history1	history2 history2 history2
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 D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	limit/base >25 >20 limit/base >3 >20 >30	17 0 31 2 232 2074 994 1131 3673 current 60 2 <1 current 0.2 5.2 18.0	29 0 48 2 348 1753 942 1094 3470 history1 48 3 1 history1 0.1 4.7 20.2	history2 history2



OIL ANALYSIS REPORT









Laboratory Sample No.

Lab Number : 06101338

Unique Number : 10899568

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0894357 Received **Tested**

Diagnosed

: 28 Feb 2024 : 28 Feb 2024 - Wes Davis

: 27 Feb 2024

Test Package : MOB 1 (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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