

OIL ANALYSIS REPORT

Sample Rating Trend



FORD 002

Component Gasoline Engine Fluid

GASOLINE ENGINE OIL SAE 5W20 (--- GAL)

DIAGNOSIS

Recommendation

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.

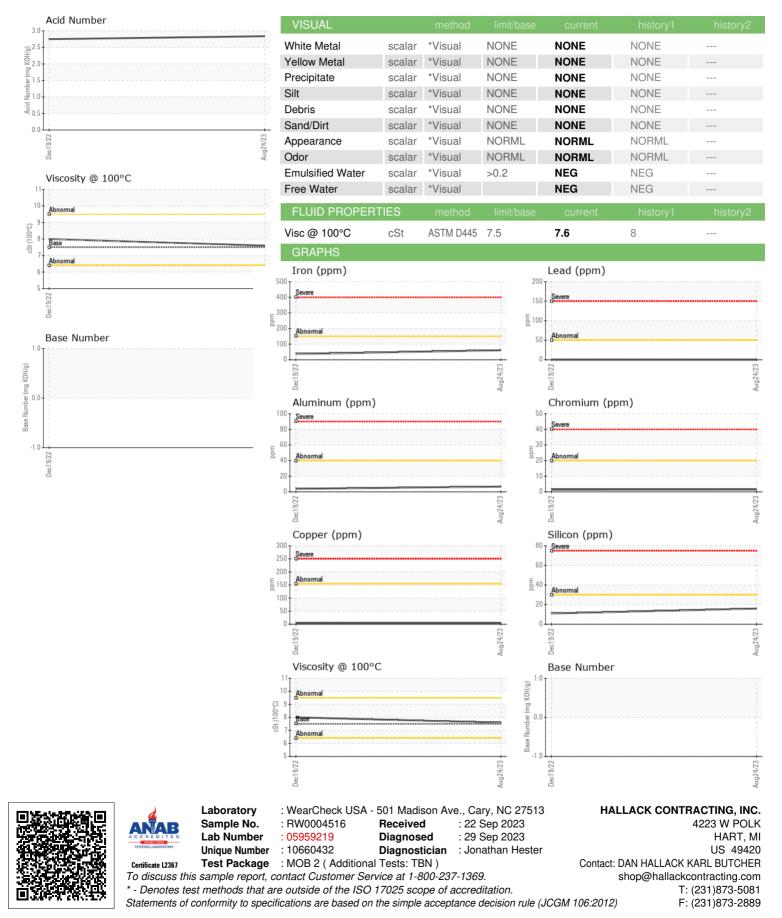
Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

			Dec2022	Aug2023		
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		RW0004516	RW0004142	
Sample Date		Client Info		24 Aug 2023	19 Dec 2022	
Machine Age	mls	Client Info		104950	99130	
Oil Age	mls	Client Info		5820	7552	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	61	37	
Chromium	ppm	ASTM D5185m	>20	2	1	
Nickel	ppm	ASTM D5185m	>5	2	2	
Titanium	ppm	ASTM D5185m		1	9	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm	ASTM D5185m	>40	7	4	
Lead	ppm	ASTM D5185m	>50	0	0	
Copper	ppm	ASTM D5185m	>155	4	4	
Tin	ppm	ASTM D5185m	>10	0	<1	
Vanadium	ppm	ASTM D5185m		0	<1	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 75	current 32	history1 17	history2
	ppm ppm					
Boron		ASTM D5185m	75	32	17	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	75 5	32 0	17 12	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	75 5	32 0 51	17 12 48	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	75 5 100	32 0 51 <1	17 12 48 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	75 5 100 12	32 0 51 <1 578	17 12 48 <1 452	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	75 5 100 12 2100	32 0 51 <1 578 751	17 12 48 <1 452 790	
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	75 5 100 12 2100 650	32 0 51 <1 578 751 553	17 12 48 <1 452 790 492	
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	75 5 100 12 2100 650 850	32 0 51 <1 578 751 553 650	17 12 48 <1 452 790 492 578	
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 ASTM D5185m	75 5 100 12 2100 650 850 2500	32 0 51 <1 578 751 553 650 2427	17 12 48 <1 452 790 492 578 1665	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	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	75 5 100 12 2100 650 850 2500 Limit/base	32 0 51 <1 578 751 553 650 2427 current	17 12 48 <1 452 790 492 578 1665 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	75 5 100 12 2100 650 850 2500 Limit/base >30	32 0 51 <1 578 751 553 650 2427 current 16	17 12 48 <1 452 790 492 578 1665 history1 11	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	75 5 100 12 2100 650 850 2500 limit/base >30 >50	32 0 51 <1 578 751 553 650 2427 current 16 14	17 12 48 <1 452 790 492 578 1665 history1 11 14	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	75 5 100 12 2100 650 850 2500 limit/base >30 >50 >20	32 0 51 <1 578 751 553 650 2427 current 16 14 3	17 12 48 <1 452 790 492 578 1665 history1 11 14 0	 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 ASTM D5185m	75 5 100 12 2100 650 850 2500 limit/base >30 >50 >20	32 0 51 <1 578 751 553 650 2427 current 16 14 3 Current	17 12 48 <1 452 790 492 578 1665 history1 11 14 0 history1	 history2 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	ASTM D5185m ASTM D5185m	75 5 100 12 2100 650 850 2500 limit/base >30 >50 >20	32 0 51 <1 578 751 553 650 2427 <u>current</u> 16 14 3 <u>current</u> 0.1	17 12 48 <1 452 790 492 578 1665 history1 11 14 0 history1 0.1	 history2 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 ASTM D5185m	75 5 100 12 2100 650 850 2500 imit/base >30 >50 >20	32 0 51 <1 578 751 553 650 2427 current 16 14 3 current 0.1 14.1	17 12 48 <1 452 790 492 578 1665 history1 11 14 0 history1 0.1 0.1 14.7	 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 ASTM D7844 *ASTM D7844 *ASTM D7844	75 5 100 12 2100 650 850 2500 2500 >30 >50 >20 20 imit/base >20 >30 >30	32 0 51 <1 578 751 553 650 2427 <i>current</i> 16 14 3 <i>current</i> 0.1 14.1 23.7	17 12 48 <1 452 790 492 578 1665 history1 11 14 0 history1 0.1 14.7 24.7 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 ASTM D5185m	75 5 100 12 2100 650 850 2500 Imit/base >30 >50 >20 Imit/base >20	32 0 51 <1 578 751 553 650 2427 <u>current</u> 16 14 3 <u>current</u> 0.1 14.1 23.7	17 12 48 <1 452 790 492 578 1665 history1 11 14 0 0 history1 0.1 14.7 24.7	 history2 history2 history2 history2



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