

OIL ANALYSIS REPORT

FORD 18

Component **Gasoline Engine**

NOT GIVEN (5 GAL)

Sample Rating Trend



DIAGNOSIS

Recommendation

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

Cylinder, crank, or cam shaft wear is indicated.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

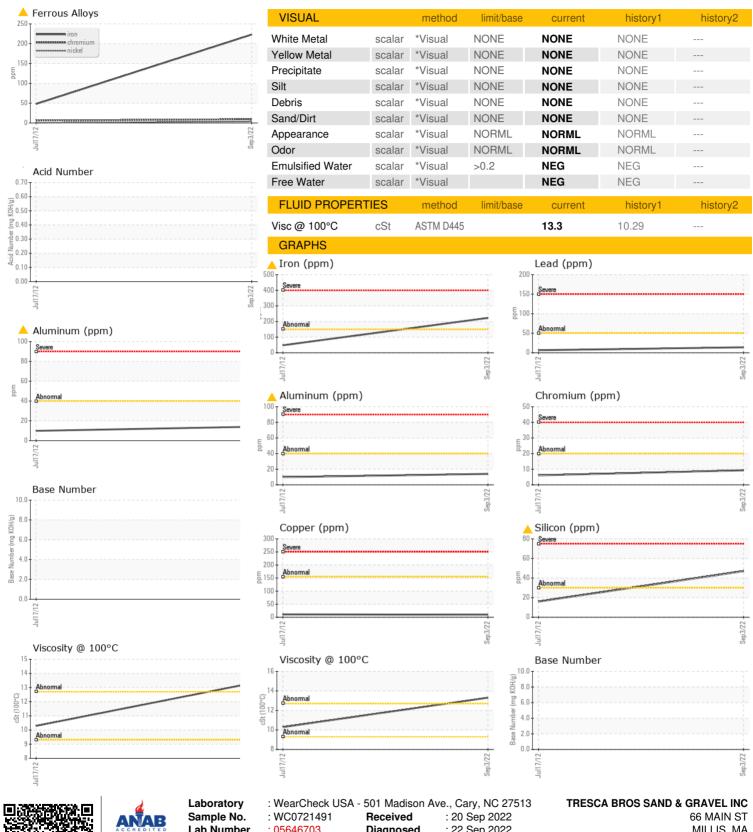
Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

			Jul2012	Sep 2022		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0721491	WCM2179104	
Sample Date		Client Info		03 Sep 2022	17 Jul 2012	
Machine Age	mls	Client Info		45017	109108	
Oil Age	mls	Client Info		3000	2500	
Oil Changed		Client Info		Changed	Changed	
Sample Status				ABNORMAL	NORMAL	
CONTAMINATION	V	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	nnm	ASTM D5185m	>150	<u>^</u> 223	48	
Chromium	ppm	ASTM D5185m	>130	9	6	
Nickel	ppm	ASTM D5185m	>5	4	<1	
Titanium	ppm	ASTM D5185m	>5	<1	<1	
Silver	ppm	ASTM D5185m	>2	0	<1	
Aluminum	ppm	ASTM D5185m	>40	<u> </u>	10	
Lead	ppm	ASTM D5185m	>50	14	6	
Copper	ppm			10	11	
Tin	ppm	ASTM D5185m	>100	1	2	
Antimony	ppm	ASTM D5185m	7.0		<1	
Vanadium	ppm	ASTM D5185m		0	<1	
Cadmium	ppm	ASTM D5185m		0	<1	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES	nnm	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	limit/base	14	5	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	14 0	5	history2
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	14 0 82	5 0 21	
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	14 0 82 2	5 0 21 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	14 0 82 2 967	5 0 21 <1 152	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	14 0 82 2 967 1181	5 0 21 <1 152 1524	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	14 0 82 2 967	5 0 21 <1 152	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	14 0 82 2 967 1181 1072	5 0 21 <1 152 1524 869	
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	limit/base	14 0 82 2 967 1181 1072	5 0 21 <1 152 1524 869 872	
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	limit/base	14 0 82 2 967 1181 1072 1297 3349 current	5 0 21 <1 152 1524 869 872 2082 history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >30	14 0 82 2 967 1181 1072 1297 3349 current	5 0 21 <1 152 1524 869 872 2082 history1	 history2
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	limit/base	14 0 82 2 967 1181 1072 1297 3349 current	5 0 21 <1 152 1524 869 872 2082 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >30 >400	14 0 82 2 967 1181 1072 1297 3349 current 47 6	5 0 21 <1 152 1524 869 872 2082 history1 16 295	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >30 >400 >20	14 0 82 2 967 1181 1072 1297 3349 current 47 6 6 6	5 0 21 <1 152 1524 869 872 2082 history1 16 295 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	limit/base >30 >400 >20	14 0 82 2 967 1181 1072 1297 3349 current 47 6 6	5 0 21 <1 152 1524 869 872 2082 history1 16 295 0	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 ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >30 >400 >20 limit/base	14 0 82 2 967 1181 1072 1297 3349 current 47 6 6 6 current 0.5	5 0 21 <1 152 1524 869 872 2082 history1 16 295 0 history1	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 D5185m	limit/base >30 >400 >20 limit/base	14 0 82 2 967 1181 1072 1297 3349 current 47 6 6 current 0.5 11.2	5 0 21 <1 152 1524 869 872 2082 history1 16 295 0 history1 0 8.	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 D7844 *ASTM D7624 *ASTM D76145	limit/base >30 >400 >20 limit/base >20 >30 limit/base	14 0 82 2 967 1181 1072 1297 3349 current ▲ 47 6 6 current 0.5 11.2 23.2	5 0 21 <1 152 1524 869 872 2082 history1 16 295 0 history1 0 8.	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 METHOD *ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m METHOD *ASTM D7844 *ASTM D7624 *ASTM D7615 METHOD	limit/base >30 >400 >20 limit/base >20 >30 limit/base	14 0 82 2 967 1181 1072 1297 3349	5 0 21 <1 152 1524 869 872 2082 history1 16 295 0 history1 0 8. 18. history1 11.	history2 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA Oxidation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method *ASTM D5185m *ASTM D76185m *ASTM D76185m *ASTM D76185m *ASTM D7624 *ASTM D76144 *ASTM D76141	limit/base >30 >400 >20 limit/base >20 >30 limit/base	14 0 82 2 967 1181 1072 1297 3349 current 47 6 6 10.5 11.2 23.2 current 20.0	5 0 21 <1 152 1524 869 872 2082 history1 16 295 0 history1 0 8. 18. history1	history2 history2 history2 history2



OIL ANALYSIS REPORT





Certificate L2367

Lab Number **Unique Number**

: 05646703 : 10141242

Diagnosed

: 22 Sep 2022 Diagnostician : Jonathan Hester

Test Package : MOB 2 (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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