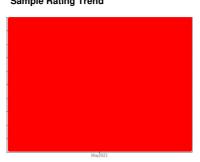


# **PROBLEM SUMMARY**

Sample Rating Trend





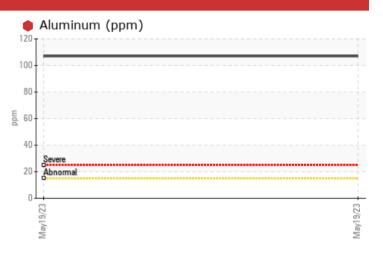
FORD 7361

Component **Diesel Engine** 

STP 15W40 (--- GAL)

### COMPONENT CONDITION SUMMARY





### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC	TEST R	ESULTS			
Sample Status				SEVERE	 
Aluminum	ppm	ASTM D5185m	>15	<b>107</b>	 
Tin	ppm	ASTM D5185m	>5	<b>28</b>	 

Customer Id: DIXNOT Sample No.: DLE0000231 Lab Number: 05966958 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 ihester@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

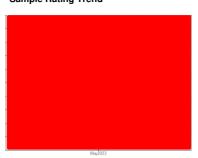
RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description		
Inspect Wear Source			?	We advise that you inspect for the source(s) of wear.		
Change Fluid			?	Oil and filter change at the time of sampling has been noted.		
Change Filter			?	Oil and filter change at the time of sampling has been noted.		
Resample			?	We recommend an early resample to monitor this condition.		

# HISTORICAL DIAGNOSIS



# **OIL ANALYSIS REPORT**

Sample Rating Trend





**FORD 7361** Component

**Diesel Engine** 

STP 15W40 (--- GAL)

### DIAGNOSIS

#### Recommendation

Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

### Wear

The aluminum level is severe. Piston wear is indicated. Bearing and/or bushing wear is indicated.

#### Contamination

There is no indication of any contamination in the

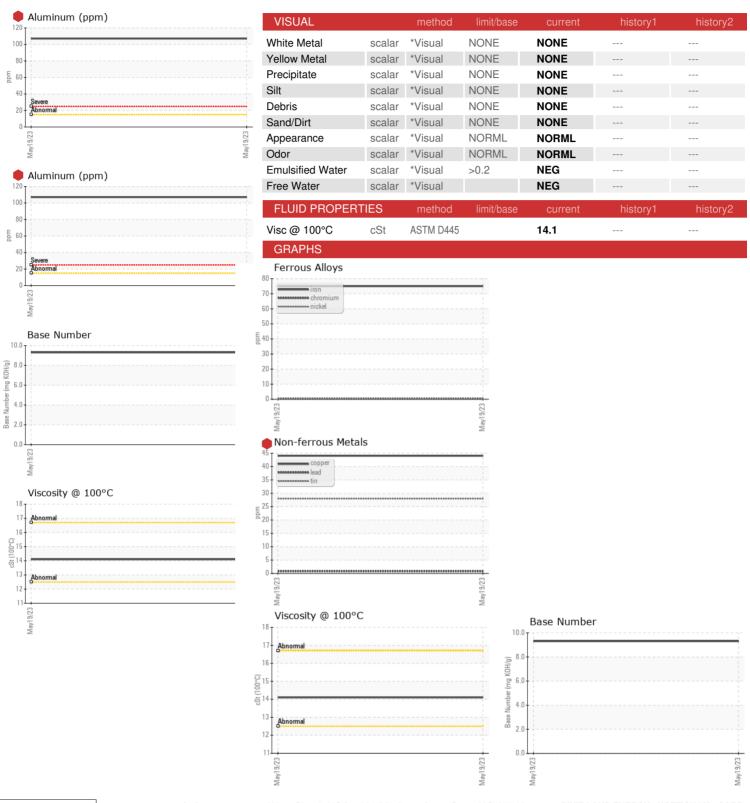
## **Fluid Condition**

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

				May2023		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		DLE0000231		
Sample Date		Client Info		19 May 2023		
Machine Age	mls	Client Info		310020		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				SEVERE		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>150	75		
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m	>10	0		
Titanium	ppm	ASTM D5185m	>2	0		
Silver	ppm	ASTM D5185m	>2	0		
Aluminum	ppm	ASTM D5185m	>15	<b>107</b>		
Lead	ppm	ASTM D5185m	>25	<1		
Copper	ppm	ASTM D5185m	>45	44		
Tin	ppm	ASTM D5185m	>5	<b>28</b>		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
Cadmium ADDITIVES	ppm	ASTM D5185m method	limit/base	o current	history1	history2
ADDITIVES	ppm		limit/base			
ADDITIVES Boron		method	limit/base	current	history1	
ADDITIVES Boron Barium	ppm	method ASTM D5185m	limit/base	current 4	history1	history2
ADDITIVES Boron Barium Molybdenum	ppm	method ASTM D5185m ASTM D5185m	limit/base	current 4 0	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 4 0 60	history1 	history2 
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 4 0 60 2	history1	history2 
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 4 0 60 2 933	history1	history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus	ppm ppm ppm ppm ppm	method  ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 4 0 60 2 933 1065	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base	current  4  0  60  2  933  1065  999	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base	current  4  0  60  2  933  1065  999  1190	history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base	current  4  0  60  2  933  1065  999  1190  3380  current  8	history1	history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current  4  0  60  2  933  1065  999  1190  3380  current	history1 history1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base	current  4  0  60  2  933  1065  999  1190  3380  current  8	history1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base >25	current  4  0  60  2  933  1065  999  1190  3380  current  8  <1	history1 history1	history2 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >20	current  4  0  60  2  933  1065  999  1190  3380  current  8  <1  0	history1 history1	history2 history2
ADDITIVES 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	method  ASTM D5185m	limit/base >25 >20 limit/base	current  4 0 60 2 933 1065 999 1190 3380 current 8 <1 0 current	history1 history1 history1	history2 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method  ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3	current  4 0 60 2 933 1065 999 1190 3380 current 8 <1 0 current 0.1	history1 history1 history1	history2 history2 history2 history2
ADDITIVES 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	method  ASTM D5185m  method  ASTM D5185m ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m	limit/base >25 >20 limit/base >3 >20	current  4  0  60  2  933  1065  999  1190  3380  current  8  <1  0  current  0.1  4.9	history1 history1 history1	history2 history2 history2 history2
ADDITIVES 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	method  ASTM D5185m  METHOD  *ASTM D5185m ASTM D7844  *ASTM D7624  *ASTM D76145	limit/base >25 >20 limit/base >3 >20 >30	current  4 0 60 2 933 1065 999 1190 3380 current 8 <1 0 current 0.1 4.9 17.7	history1 history1 history1	history2 history2 history2 history2



# **OIL ANALYSIS REPORT**







Laboratory Sample No. Lab Number Unique Number

: DLE0000231 : 05966958 : 10673509 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 02 Oct 2023 Diagnosed : 04 Oct 2023

: Jonathan Hester Diagnostician

**DIXIE LAND ENERGY - NOTTIGHAM - CORP** 299 OLD BALTIMORE PIKE NOTTINGHAM, PA US 19362

> Contact: ADAM BEACH abeach@dixielandenergy.com T: (888)517-3680

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)

F: