



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**FORD 343-16**  
 Component  
**Diesel Engine**  
 Fluid  
**DURALENE Dura-Max 15W40 (14 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DC0030587</b>	DC0030567	DC0028627
Sample Date		Client Info		<b>29 Jan 2024</b>	07 Dec 2023	27 Jul 2023
Machine Age	mls	Client Info		<b>275452</b>	269193	255285
Oil Age	mls	Client Info		<b>6000</b>	9000	7683
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>8</b>	10	8
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	2	<1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	1	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

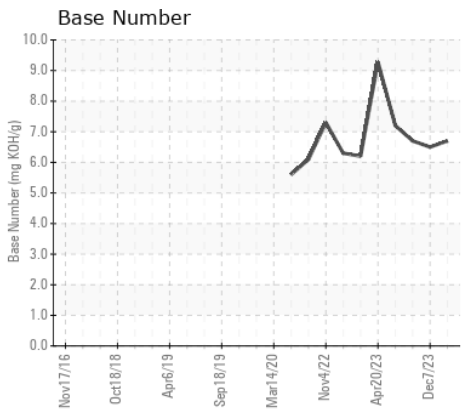
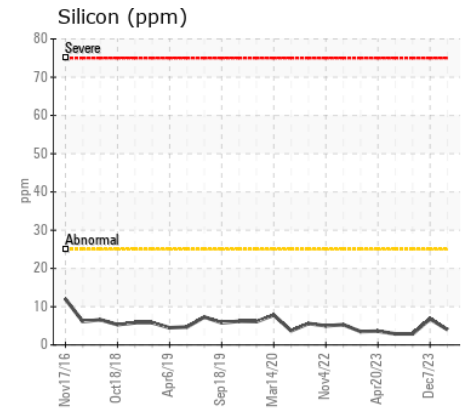
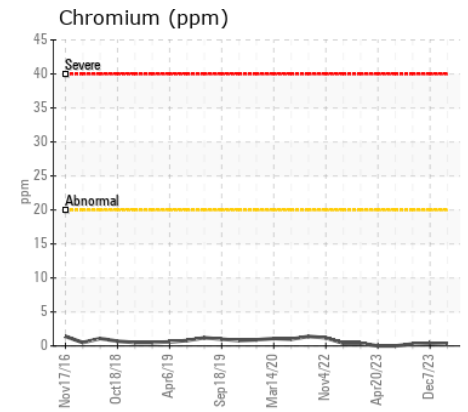
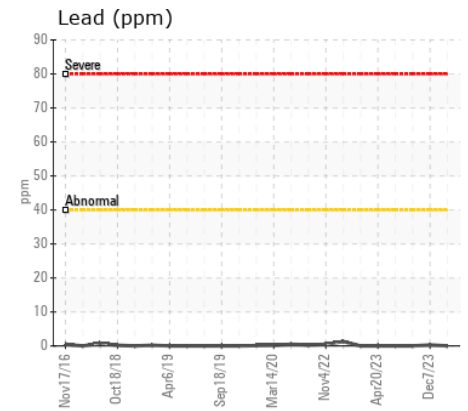
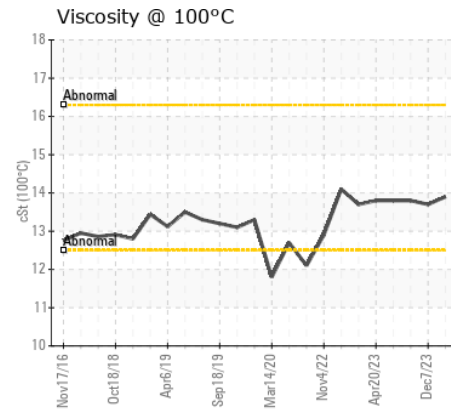
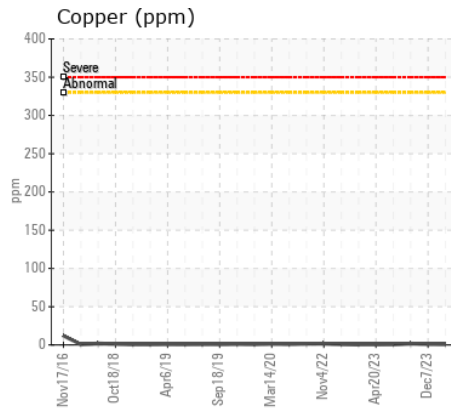
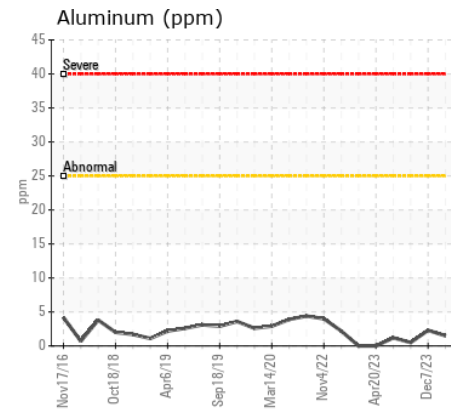
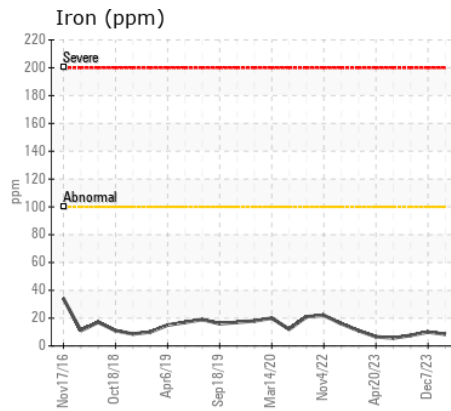
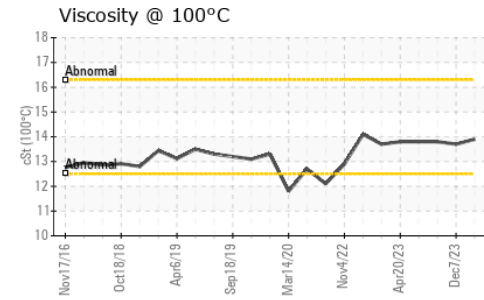
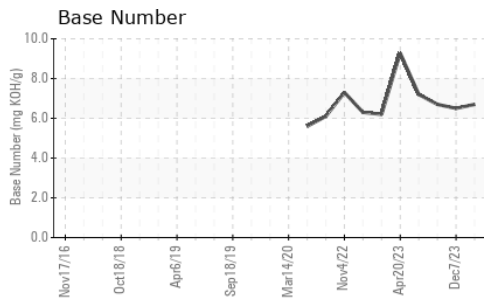
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	7	3
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	0
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.3</b>	7.3	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.3</b>	18.1	17.9
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## 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.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Boron	ppm	ASTM D5185m		<b>3</b>	4	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>2</b>	1	1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>45</b>	43	27
Calcium	ppm	ASTM D5185m		<b>2209</b>	2278	2347
Phosphorus	ppm	ASTM D5185m		<b>920</b>	922	892
Zinc	ppm	ASTM D5185m		<b>1080</b>	1105	1093
Sulfur	ppm	ASTM D5185m		<b>3780</b>	3739	4504
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>10.8</b>	11.4	11.0
Base Number (BN)	mg KOH/g	ASTM D2896		<b>6.7</b>	6.5	6.7
Visc @ 100°C	cSt	ASTM D445		<b>13.9</b>	13.7	13.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : DC0030587

**Lab Number** : 06089398

**Unique Number** : 10876843

**Test Package** : MOB 1 ( Additional Tests: TBN )

**Received** : 14 Feb 2024

**Tested** : 15 Feb 2024

**Diagnosed** : 15 Feb 2024 - Wes Davis

**NEW DIRECTION UTILITIES**

21616 KELSO DR

HAGERSTOWN, MD

US 21742

Contact: GARY BLOYER

gary@newdirectionutilities.com

T: (301)714-0083

F:

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)