

## **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

## FORD 515613

Component Gasoline Engine Fluid DIESEL ENGINE OIL SAE 5W30 (--- 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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC0085545	PC0085560	
Sample Date		Client Info		05 Apr 2024	20 Feb 2024	
Machine Age	kms	Client Info		11011	6957	
Oil Age	kms	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>150	11	8	
Chromium	ppm	ASTM D5185(m)	>20	0	0	
Nickel	ppm	ASTM D5185(m)	>5	0	<1	
Titanium	ppm	ASTM D5185(m)		<1	0	
Silver	ppm	ASTM D5185(m)	>2	0	0	
Aluminum	ppm	ASTM D5185(m)	>40	3	3	
Lead	ppm	ASTM D5185(m)	>50	0	<1	
Copper	ppm	ASTM D5185(m)		8	8	
Tin	ppm	ASTM D5185(m)	>10	0	0	
Antimony	ppm	ASTM D5185(m)		0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	49	108	
Barium	ppm	ASTM D5185(m)	10	<1	0	
Molybdenum	ppm	ASTM D5185(m)	100	77	77	
Manganese	ppm	ASTM D5185(m)		1	<1	
Magnesium	ppm	ASTM D5185(m)	450	504	512	
Calcium	ppm	ASTM D5185(m)	3000	1219	1251	
Phosphorus	ppm	ASTM D5185(m)	1150	632	669	
Zinc	ppm	ASTM D5185(m)	1350	723	739	
Sulfur	ppm	ASTM D5185(m)	4250	2206	2450	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>30	34	33	
Sodium	ppm	ASTM D5185(m)	>400	4	3	
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0	0	
Nitration	Abs/cm	ASTM D7624*	>20	11.2	8.0	
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.3	18.9	



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80 Abnormal 75 70 cSt (40°C) 09 Ba

55 50 Abnormal 45 Feb20/2

14 13 Abnormal

12. 11. 11. 10. 01. Base

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55 50 Abnormal 45 Feb20/24

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27

Abnormal 75 70 cSt (<del>4</del>0°C) 09 Base

Ab 8 Feb20/24

FT-IR (Direct Trend)

Oxidation

Nitration Sulfation

Viscosity @ 40°C

Viscosity @ 100°C

Viscosity @ 40°C

# **OIL ANALYSIS REPORT**

)		FLUID DEGRAI	DATION	method	limit/base	current	history1	history2
		Oxidation		ASTM D7414*	>25	18.2	12.9	
		Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	5.06	6.52	
		VISUAL		method	limit/base	current	history1	history2
		White Metal	scalar	Visual*	NONE	VLITE	NONE	
		Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
	Apr5/24 -	Precipitate	scalar	Visual*	NONE	NONE	VLITE	
	Ap	Silt	scalar	Visual*	NONE	VLITE	NONE	
		Debris	scalar	Visual*	NONE	NONE	NONE	
		Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
		Appearance	scalar	Visual*	NORML	NORML	NORML	
		Odor	scalar	Visual*	NORML	NORML	NORML	
		Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
		Free Water	scalar	Visual*		NEG	NEG	
		FLUID PROPE	RTIES	method	limit/base	current	history1	history2
	- 724 -	Visc @ 40°C	cSt	ASTM D7279(m)	63	54.7	52.3	
	Apr5/24	Visc @ 100°C	cSt	ASTM D7279(m)	10.9	9.7	9.5	
		Viscosity Index (VI)	Scale	ASTM D2270*	165	163	167	
		GRAPHS						
		Iron (ppm)				Lead (ppm)		
		600 Severe			200	Severe		
	*****				톱 100	4		
		200 - Abnormal			50	Abnormal		
		0			24	54		
	5	-eb 20/24			Apr5/24	Feb20/24		
	AE.19	ے Aluminum (ppm)				Chromium (p	)	
		<sup>100</sup> Severe			60			
		-			_ 40	Severe		
		E 50 - Abnormal			40 20	Abnormal		
		0						
		-eb20/24			Apr5/24 .	Feb20/24 .		
		Feb 2			Api	Feb 2		
		Copper (ppm)				Silicon (ppm)		
		300 Severe			60	Severe		
	V Gr J	Abnormal			특 40			
	AA	<sup>6</sup> 100			20	<u> </u>		
					0	L.		
		Feb 20/24			Apr5/24	Feb 20/24		
		—			4			
		Viscosity @ 100°C			 F15.0	Base Number		
		Abnormal			ହୁ ଜୁ 10.0	Abnormal		
		Base			L IO.O	0		
		경 <sup>10</sup> - Abnormal			0.0 Base 0.0	- Abrionnia		
		8 4 2 2			Base 0.0			
		Feb 20/24			Apr5/24 B	Feb 20/24		
17025:2017	Unique Number		Recei Teste Diagn	ved : 01   d : 02   iosed : 02	gton, ON L7L May 2024 2 May 2024 May 2024 - W		2900 ST C	UPS CANAL EELES AVE ONCORD, C CA L4K 3
	iest Package	: MOB 2 ( Additional Te					Contact: Se	ervice Manag
	ampla range		ino at 1 a	00 200 010	1			
discuss this s		t, contact Customer Serv be of accreditation, (m) m				nal lab		

Contact/Location: Service Manager - UPS290CON Page 2 of 2