

## **OIL ANALYSIS REPORT**

WEAR

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### Machine Id FORD FORD

Component Transfer Case Fluid {not provided} (--- LTR)

#### DIAGNOSIS

#### A Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

#### 🔺 Wear

Nickel ppm levels are severe.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		CU0020691		
Sample Date		Client Info		01 Apr 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				SEVERE		
CONTAMINATION	1	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>500	379		
Chromium	ppm	ASTM D5185(m)	>5	<1		
Nickel	ppm	ASTM D5185(m)	>5	<b>4</b> 29		
Titanium	ppm	ASTM D5185(m)		<1		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>45	20		
Lead	ppm	ASTM D5185(m)	>150	4		
Copper	ppm	ASTM D5185(m)	>100	83		
Tin	ppm	ASTM D5185(m)	>5	<1		
Antimony	ppm	ASTM D5185(m)	>5	0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		34		
Barium	ppm	ASTM D5185(m)		3		
Molybdenum	ppm	ASTM D5185(m)		1		
Manganese	ppm	ASTM D5185(m)		145		
Magnesium	ppm	ASTM D5185(m)		3		
Calcium	ppm	ASTM D5185(m)		160		
Phosphorus	ppm	ASTM D5185(m)		145		
Zinc	ppm	ASTM D5185(m)		21		
Sulfur	ppm	ASTM D5185(m)		1106		
Lithium	ppm	ASTM D5185(m)		5		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>85	59		
Sodium	ppm	ASTM D5185(m)		11		
Potassium	ppm	ASTM D5185(m)	>20	9		



Apr1/24 .

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White Melai scalar Visual* NONE NONE Yellow Metai scalar Visual* NONE NONE Precipitate scalar Visual* NONE NONE Sit scalar Visual* NONE NONE Sand/Dirt scalar Visual* NONE NONE Appearance scalar Visual* NONE NONE Price Water scalar Visual* NONE NORE Free Water scalar Visual* NORML NORML NEG SAMPLE IMAGES method limit/base current history1 history2 Visc @ 40°C cit ASIMUT2Mim GRAPHS Lead (ppm) 									
Yeliow Melal   Scalar   Visual*   NONE       Sitt   Scalar   Visual*   NONE       Debris   Scalar   Visual*   NONE       Debris   Scalar   Visual*   NONE       Debris   Scalar   Visual*   NONE       Appearance   scalar   Visual*   NORML   NORML      Emulsified Wate   scalar   Visual*   NORML   NORML      Free Water   scalar   Visual*   NORML   NORML      Visc @ 40°C   c.St   ASIMD228m   27.5       SAMPLE IMAGES   method   limit/base   current   history1   history2     Color   Color   Ino image   no image   no image     Iron (ppm)			White Metal	scalar	Visual*	NONE	NONE		
Precipitate scalar Visual" NONE NONE Sitt scalar Visual" NONE NONE Sand/Dirt Scalar Visual" NONE NONE			Yellow Metal	scalar	Visual*	NONE	NONE		
Silit Scalar Visual" NONE NONE Band'Dirt Scalar Visual" NONE NONE Appearance Scalar Visual" NORML NORML Emulsified Water Scalar Visual" NORML NORML Free Water Scalar Visual" NORML NORML Emulsified Water Scalar Visual" NORML NORML Endustry of the start of t			Precipitate	scalar	Visual*	NONE	NONE		
Debris scalar Visual* NONE NONE SandDirt scalar Visual* NONE NONE Appearance scalar Visual* NORML NORML Gdor scalar Visual* NORML NORML Free Water scalar Visual* NORML NEG Free Water scalar Visual* NEG Free Water scalar Visual* NEG SAMPLE IMAGES method imit/base current history1 history2 Visc @ 40°C c.St ASM/D22(m) 27.5 SAMPLE IMAGES method imit/base current history1 history2 Color no image no image define the scalar visual* of the scala			Silt	scalar	Visual*	NONE	NONE		
Sand/Dirt scalar Visual* NONE NORE Appearance scalar Visual* NORML Codor scalar Visual* NORML NORML Emulsified Water scalar Visual* NORML NORML Erie Water scalar Visual* NORML NEG Frie Water scalar Visual* NEG Frie Water scalar Visual* NEG Frie Water scalar Visual* NEG SAMPLE IMAGES method imit/base current history1 history2 Vis @ 40° C GRAPHS Color no image no image 			Debris	scalar	Visual*	NONE	NONE		
Appearance scalar Visual* NORML NORML Odor scalar Visual* NORML NORML Emulsified Water scalar Visual* NORML NORML Free Water scalar Visual* NORML NORML Free Water scalar Visual* NORML NEG FLUID PROPERTIES method limit/base current history1 history2 Visc @ 40°C cst ASM/072%m 27.5 SAMPLE IMAGES method limit/base current history1 history2 Color no image no image no image no image GRAPHS Iron (ppm) Aluminum (ppm) Aluminum (ppm) Copper (ppm)			Sand/Dirt	scalar	Visual*	NONE	NONE		
2   Odor   scalar   Visual*   NORML       Emulsified Water   scalar   Visual*   NEG       FLUID PROPERTIES   method   limit/base   current   history1   history2     Visc @ 40°C   cSt   ASTMUZINM   27.5       SAMPLE IMAGES   method   limit/base   current   history1   history2     Color   Imit/base   current   history1   history2     Bottom   Imit/base   current   history1   history2     Imit/base   current   history1   history2   no image     Imit/Imit/base   current   history1   history2   no image     Imit/Imit/Imit/Imit/Imit/Imit/Imit/Imit/		r1/24	Appearance	scalar	Visual*	NORML	NORML		
Emulsified Water scalar Visual* >0.2 NEG Free Water scalar Visual* NEG FLUID PROPERTIES method limit/base current history1 history2 Viso @ 40°C cSt ASTUD727(m) 27.5 SAMPLE IMAGES mothod limit/base current history1 history2 Color no image no image Bottom no image no image GRAPHS Tron (ppm) GRAPHS Copper (ppm) Gramminum (ppm) Copper (ppm) Copp		Ap	Odor	scalar	Visual*	NORML	NORML		
Free Water scalar Visual' NEG FLUID PROPERTIES method imit/base current history1 history2 Visc @ 40°C csl ASTM D729m Color no image no image Bottom command GRAPHS Tron (ppm)			Emulsified Water	scalar	Visual*	>0.2	NEG		
FLUID PROPERTIES   method   limit/base   current   history1   history2     Visc @ 40°C   c.Si   ASIM/D223(m)   27.5       SAMPLE IMAGES   method   limit/base   current   history1   history2     Color   Imit/base   current   history1   history2     Bottom   Imit/base   current   history1   history2     Imit/base   current   history1   history2     Imit/base   current   history1   history2     Imit/base   current   history1   history2     Imit/base   no image   no image   no image     Imit/base   Imit/base   no image   no image     Imit/base   Imit/base   Imit/base   Imit/base   Imit/base     Imit/base   Imit/base   Imit/base   Imit/base <td< td=""><td></td><td></td><td>Free Water</td><td>scalar</td><td>Visual*</td><td></td><td>NEG</td><td></td><td></td></td<>			Free Water	scalar	Visual*		NEG		
Image Content Instruction   Visc @ 40°C cSi ASIM DIZING 27.5    SAMPLE IMAGES method Imit/base current history1 history2   Bottom Imit/base current history1 history2   Imit/base Imit/base current history1 history2   Imit/base Imit/base current history1 history2   Imit/base Imit/base Imit/base Imit/base Imit/base   Imit/ba					mothod	limit/baco	ourront	history1	history?
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Color no image no image Bottom CRAPHS Tron (ppm)			SAMPLE IMAGE	S	method	limit/base	current	history1	history2
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Bottom no image no image GRAPHS Iron (ppm)		Apr1/24 -	Color					no image	no image
GRAPHS     Iron (ppm)   Iron (ppm)     Iron (ppm)   Iron (ppm)  <			Bottom					no image	no image
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Aluminum (ppm)			Apr			Apr	Apr		-
Copper (ppm)			Aluminum (ppm)				Chromium (p	pm)	
Copper (ppm)			100 - Severe			1	Severe		
Copper (ppm)			E 50 Abnormal			шdd	L Abnormal		*********
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Viscosity @ 40°C			Copper (ppm)				Silicon (ppm)		
Viscosity @ 40°C			300 Severe			20	Severe		
Viscosity @ 40°C			Abnormal			툍 10	0 - Abnormal		
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Contraction of the second seco			<sup>150</sup> T			30	<sup>0</sup> T		
April 24 April			ာ 100 - Abnormal			E 20	0 - calcium	2	
Apri/24			हुँ 50 -			<sup>2</sup> 10	0 - zinc		
Apr1/			25			24 +	24 to 0		~ C
			Apr1/			Apr1/	Apr1/		
CALA Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 JOHN MENKH	CALA	Laboratory Samale No	Copper (ppm) 300 400 500 500 500 500 500 500 5	5 Appleby	Line, Burlin	20 472/144	Silicon (ppm)	JOHN 4655 ELIGH BE	MENKH
	Tening Accreditation No. 1006218	Sample No.	: CU0020691	Receiv	/ed : 09	9 Apr 2024	1	4655 ELIGH BE	CKSTEND R
Sample No.     CU0020691     Received     : 09 Apr 2024     14655 ELIGH BECKSTEND R	D 17025:2017 Accredited	Lab Number	: 0262/722	Testec	1 :09	9 Apr 2024	vin Marcon	NE	WINGTON, O
Sample No.     : CU0020691     Received     : 09 Apr 2024     14655 ELIGH BECKSTEND R       1025:2017     Lab Number     : 02627722     Tested     : 09 Apr 2024     NEWINGTON, O       Vidted     Ubique Number     : 5760954     : 00 Apr 2024     NEWINGTON, O	Laboratory	Test Package	· MOB 1	Diagno	Diagnosed : 09 Apr 2024 - Kevin Marson				Contact: Joh
Sample No. : CU0020691 Received : 09 Apr 2024 14655 ELIGH BECKSTEND R   voz5:2017 Lab Number : 02627722 Tested : 09 Apr 2024 NEWINGTON, O   redited Unique Number : 5760854 Diagnosed : 09 Apr 2024 - Kevin Marson CA KOC 1Y	discuss this	s sample report	contact Customer Serv	vice at 1-80	0-268-213	1.		johnmenkho	rst@gmail.co
Sample No.   : CU0020691   Received   : 09 Apr 2024   14655 ELIGH BECKSTEND R     v025:2017   Lab Number   : 02627722   Tested   : 09 Apr 2024   NEWINGTON, O     v025:2017   Unique Number   : 5760854   Diagnosed   : 09 Apr 2024 - Kevin Marson   CA K0C 1Y     redited oratory   : MOB 1   : 09 Apr 2024 - Kevin Marson   CA K0C 1Y     iscuss this sample report, contact Customer Service at 1-800-268-2131   : ophmenkhorst@gmail.com	est denoted (	(*) outside scone	e of accreditation. (m) m	nethod mod	dified, (e) te	ested at exter	mal lab.	T:	(613)551-100
Sample No.   : CU0020691   Received   : 09 Apr 2024   14655 ELIGH BECKSTEND R     v025:2017   Lab Number   : 02627722   Tested   : 09 Apr 2024   NEWINGTON, O     redited oratory   Unique Number   : 5760854   Diagnosed   : 09 Apr 2024 - Kevin Marson   CA K0C 1Y     iscuss this sample report, contact Customer Service at 1-800-268-2131.   ionumenthorst@gmail.com   contact: Joh     denoted (*) outside scope of accreditation, (m) method modified. (e) tested at external lab.   T: (613)551-100	alidity of resu	ilts and interpret	tation are based on the	sample an	nd informati	on as supplie	ed.		F

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Contact/Location: John ? - JOH146NEW

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