



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

Machine Id  
**FORD F-150 V119**  
 Component  
**Front Differential**  
 Fluid  
**GEAR OIL SAE 80W140 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0206144</b>	JR0178492	JR0101707
Sample Date		Client Info		<b>25 Apr 2024</b>	17 Nov 2023	09 Aug 2023
Machine Age	mls	Client Info		<b>84540</b>	73005	64415
Oil Age	mls	Client Info		<b>84540</b>	8590	64415
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>ATTENTION</b>	ABNORMAL	ATTENTION

### WEAR

Metal levels are typical for a new component breaking in.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
PQ		ASTM D8184		<b>740</b>	17	526
Iron	ppm	ASTM D5185m	>1206	<b>813</b>	▲ 910	681
Chromium	ppm	ASTM D5185m	>9	<b>10</b>	7	8
Nickel	ppm	ASTM D5185m	>9	<b>&lt;1</b>	▲ 33	<1
Titanium	ppm	ASTM D5185m		<b>2</b>	14	2
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>72	<b>7</b>	<1	7
Lead	ppm	ASTM D5185m	>56	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>57	<b>3</b>	5	4
Tin	ppm	ASTM D5185m	>6	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

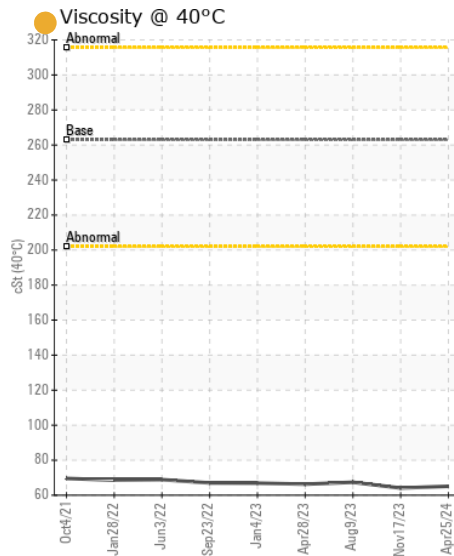
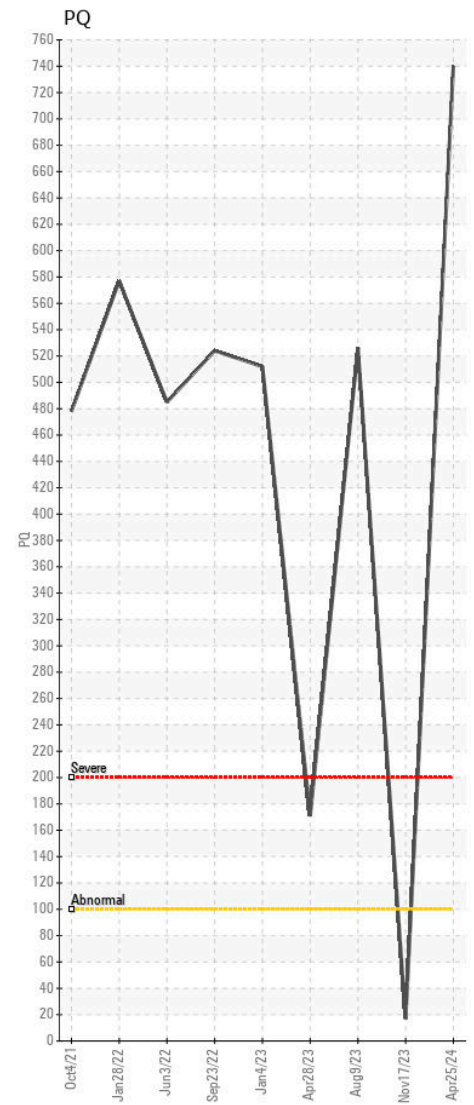
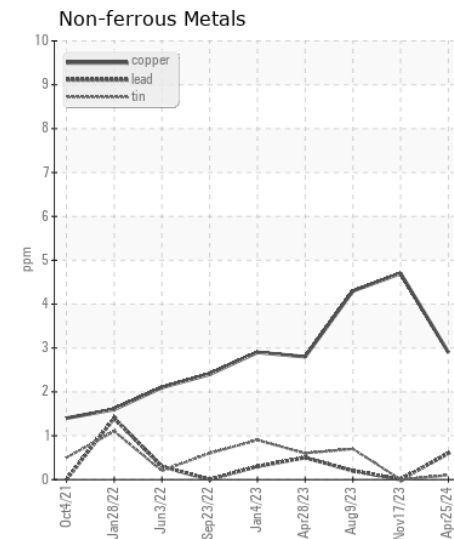
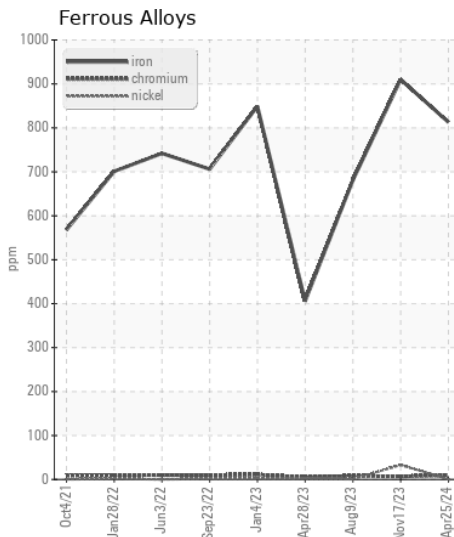
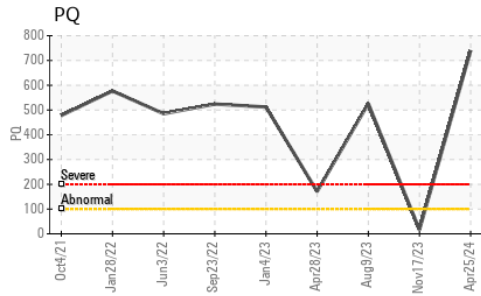
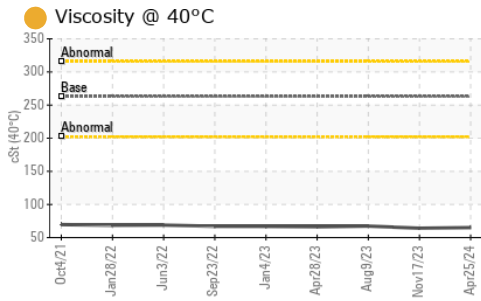
There is no indication of any contamination in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Silicon	ppm	ASTM D5185m	>344	<b>99</b>	19	73
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	3	3
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
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	>.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The oil viscosity is lower than normal. Confirm oil type. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sodium	ppm	ASTM D5185m		<b>8</b>	11	9
Boron	ppm	ASTM D5185m	400	<b>171</b>	98	194
Barium	ppm	ASTM D5185m	200	<b>3</b>	9	0
Molybdenum	ppm	ASTM D5185m	12	<b>0</b>	4	0
Manganese	ppm	ASTM D5185m		<b>16</b>	20	14
Magnesium	ppm	ASTM D5185m	12	<b>9</b>	0	5
Calcium	ppm	ASTM D5185m	150	<b>22</b>	10	55
Phosphorus	ppm	ASTM D5185m	1650	<b>1375</b>	1378	1322
Zinc	ppm	ASTM D5185m	125	<b>33</b>	19	25
Sulfur	ppm	ASTM D5185m	22500	<b>24071</b>	20298	23805
Visc @ 40°C	cSt	ASTM D445	263	● <b>65.1</b>	● 64.1	● 67.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0206144 **Received** : 09 May 2024  
**Lab Number** : 06174191 **Tested** : 10 May 2024  
**Unique Number** : 11020244 **Diagnosed** : 12 May 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**MATTHEWS CONSTRUCTION**  
 127 GRAYSON RD  
 ROCK HILL, SC  
 US 29732  
 Contact: Tad Clinton  
 tclinton@matthewsconstructionco.com  
 T: (803)207-5607  
 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)