TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ATTENTION
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
FORD F150
Component
Gasoline Engine
Fluid
TRC PRO-SPEC SYNTHETIC 5W20 (7 QTS)

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

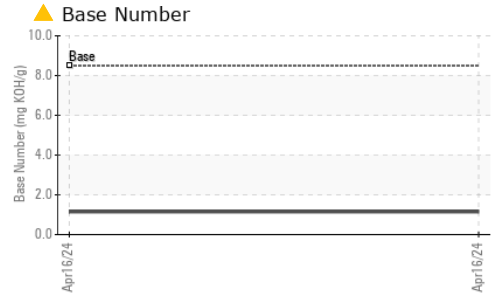
CONTAMINATION

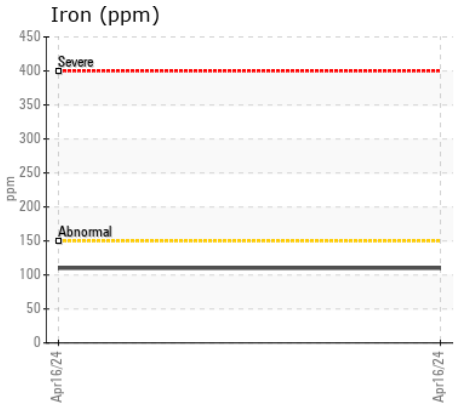
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a light concentration of water present in the oil.

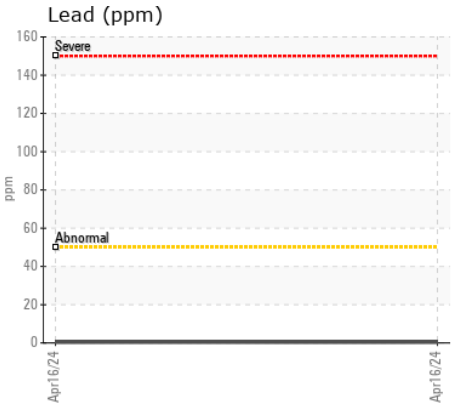
FLUID CONDITION

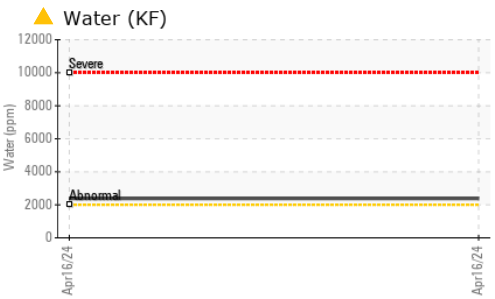
The BN level is low.

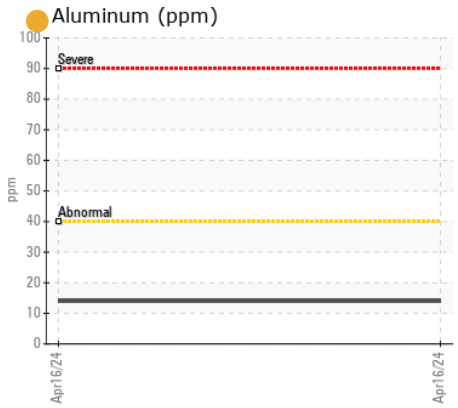
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06151310	---	---
Sample Date		Client Info		16 Apr 2024	---	---
Machine Age	hrs	Client Info		15000	---	---
Oil Age	hrs	Client Info		5000	---	---
Filter Age	hrs	Client Info		5000	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185m	>150	110	---	---
Chromium	ppm	ASTM D5185m	>20	2	---	---
Nickel	ppm	ASTM D5185m	>5	1	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>40	● 14	---	---
Lead	ppm	ASTM D5185m	>50	<1	---	---
Copper	ppm	ASTM D5185m	>155	16	---	---
Tin	ppm	ASTM D5185m	>10	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>30	▲ 36	---	---
Potassium	ppm	ASTM D5185m	>20	8	---	---
Fuel	%	ASTM D3524	>4.0	<1.0	---	---
Water	%	ASTM D6304	>0.2	▲ 0.238	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ 2380	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844		0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	15.5	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.5	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	▲ 0.2%	---	---
Sodium	ppm	ASTM D5185m	>400	14	---	---
Boron	ppm	ASTM D5185m		16	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m	400	116	---	---
Manganese	ppm	ASTM D5185m		29	---	---
Magnesium	ppm	ASTM D5185m	600	9	---	---
Calcium	ppm	ASTM D5185m	1500	1593	---	---
Phosphorus	ppm	ASTM D5185m	800	545	---	---
Zinc	ppm	ASTM D5185m	900	677	---	---
Sulfur	ppm	ASTM D5185m		1886	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	38.4	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	▲ 1.15	---	---
Visc @ 100°C	cSt	ASTM D445	8.5	5.2	---	---

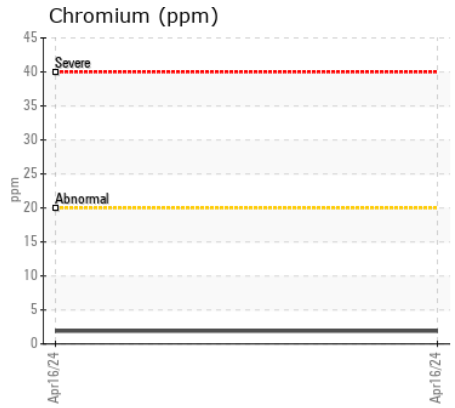


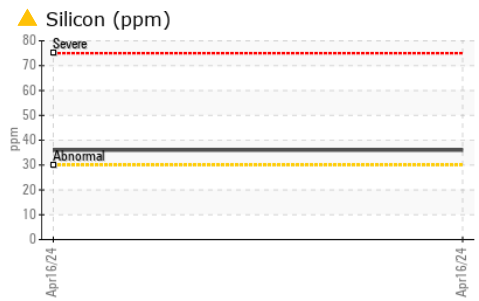


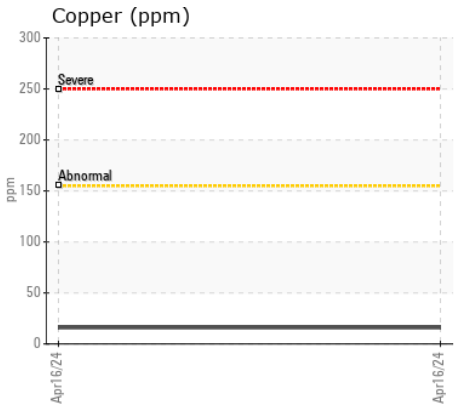


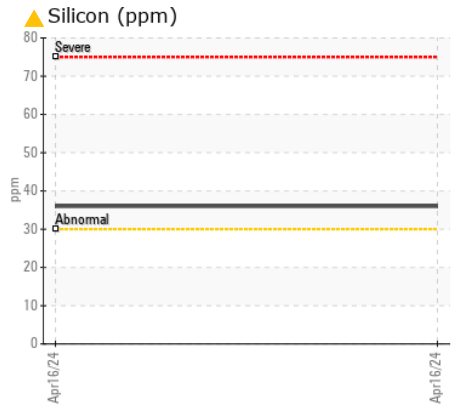


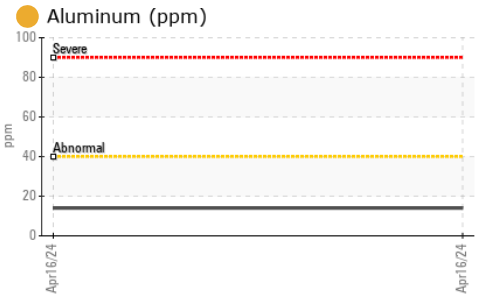


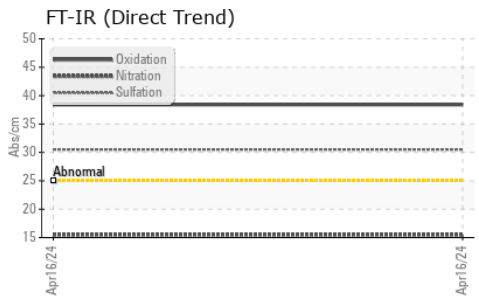


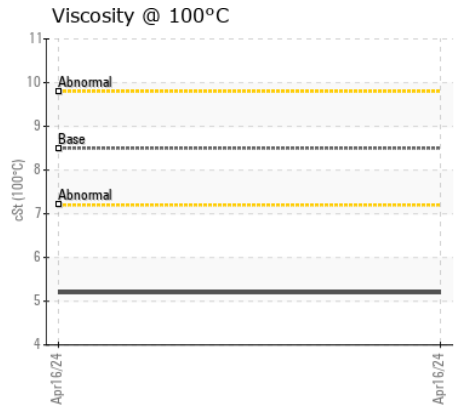


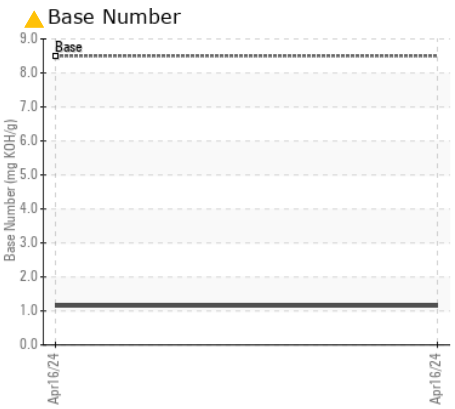












Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06151310
Lab Number : 06151310
Unique Number : 10981388
Test Package : MOB 2 (Additional Tests: FuelDilution, KF, PercentFuel)

Received : 16 Apr 2024
Tested : 19 Apr 2024
Diagnosed : 19 Apr 2024 - Jonathan Hester

CHET MILLER
1524 MILLER FARM SER RD
HIDALGO, TX
US 78557
Contact: STEVE SMITH

To discuss this sample report, contact Customer Service at 1-800-827-0711.
** - 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)

T:
F: