



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Area
LONGVIEW
Machine Id
FORD 12443

Component
Diesel Engine
Fluid
TULCO LUBSOIL CK-4 15W40 (3 GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TO5000831	---	---
Sample Date		Client Info		19 Dec 2023	---	---
Machine Age	hrs	Client Info		8813	---	---
Oil Age	hrs	Client Info		362	---	---
Filter Age	hrs	Client Info		362	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				SEVERE	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	21	---	---
Chromium	ppm	ASTM D5185m	>20	<1	---	---
Nickel	ppm	ASTM D5185m	>2	0	---	---
Titanium	ppm	ASTM D5185m	>2	<1	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>25	3	---	---
Lead	ppm	ASTM D5185m	>40	0	---	---
Copper	ppm	ASTM D5185m	>330	1	---	---
Tin	ppm	ASTM D5185m	>15	0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

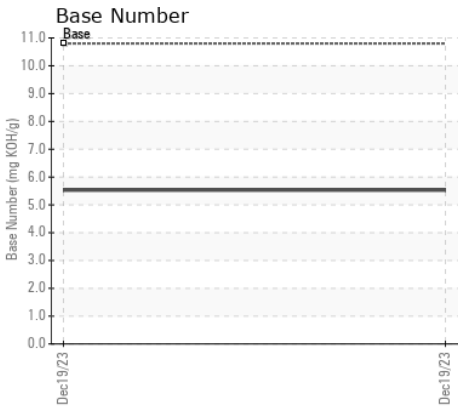
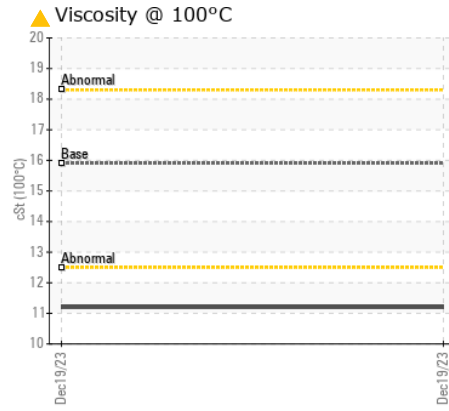
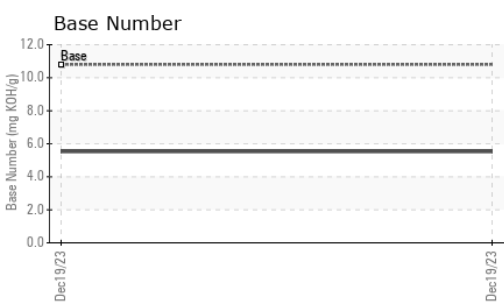
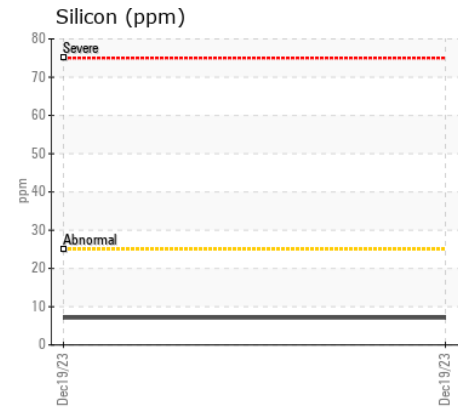
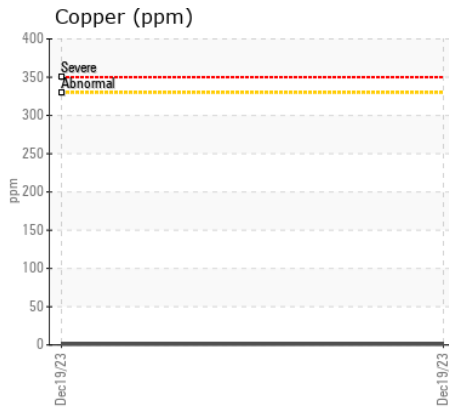
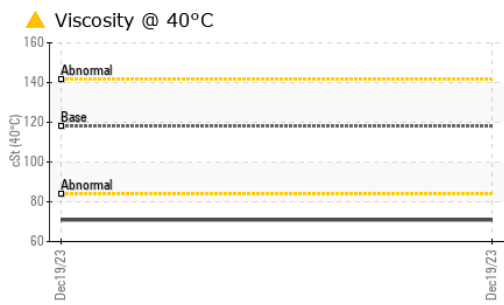
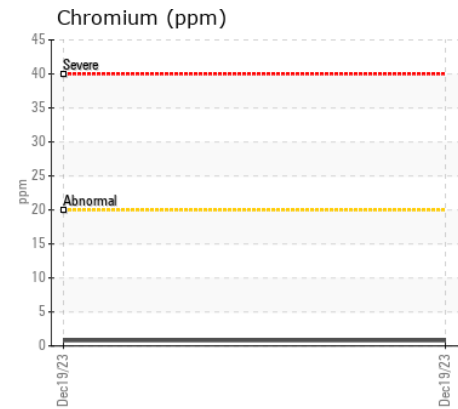
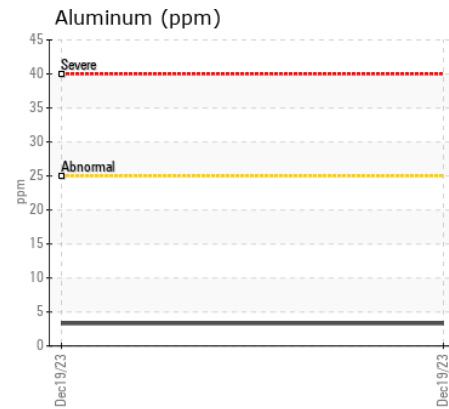
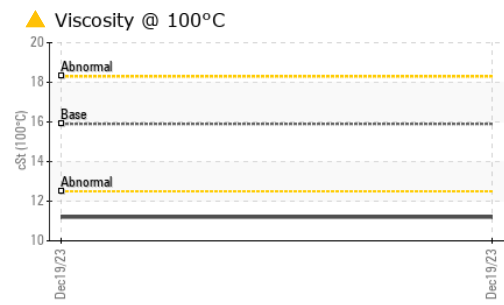
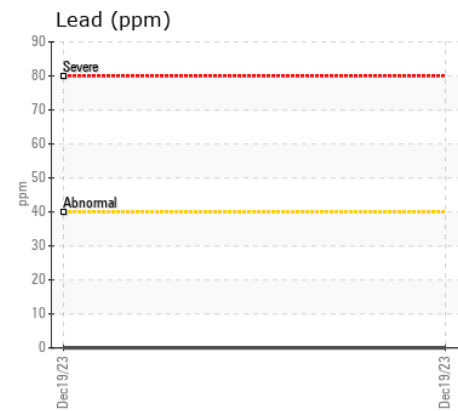
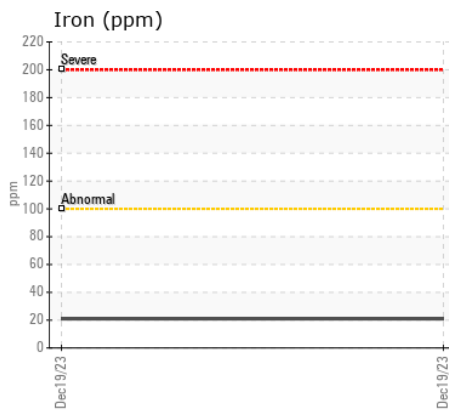
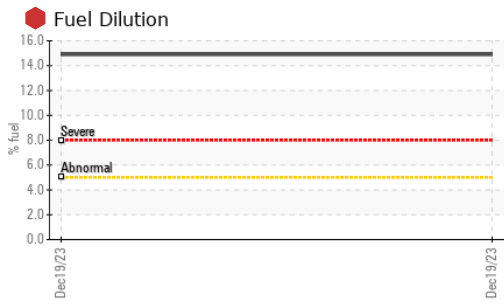
There is a high amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	7	---	---
Potassium	ppm	ASTM D5185m	>20	<1	---	---
Fuel	%	ASTM D3524	>5	14.9	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.3	---	---
Nitration	Abs/cm	*ASTM D7624	>20	12.9	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.1	---	---
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	NEG	---	---

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		<1	---	---
Boron	ppm	ASTM D5185m		38	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m	65	60	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m	1060	24	---	---
Calcium	ppm	ASTM D5185m	1140	1705	---	---
Phosphorus	ppm	ASTM D5185m	1170	810	---	---
Zinc	ppm	ASTM D5185m	1230	981	---	---
Sulfur	ppm	ASTM D5185m	3130	4112	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	31.6	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.8	5.53	---	---
Visc @ 40°C	cSt	ASTM D445	118	70.9	---	---
Visc @ 100°C	cSt	ASTM D445	15.9	11.2	---	---
Viscosity Index (VI)	Scale	ASTM D2270	143	149	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50000831 **Received** : 21 Dec 2023
Lab Number : 06042288 **Diagnosed** : 28 Dec 2023
Unique Number : 10802896 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: FuelDilution, KV40, PercentFuel, VI)

KLX ENERGY SERVICES
 5104 ESTES PKWY
 LONGVIEW, TX
 US 75603
 Contact: DUSTIN TREST
 dustin.trest@klx.com

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)

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F: