

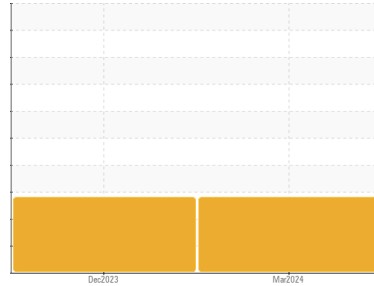
# OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Area  
**LONGVIEW**  
Machine Id  
**FORD E41509**  
Component  
**Diesel Engine**  
Fluid  
**TULCO LUBSOIL CK-4 15W40 (13 QTS)**



## DIAGNOSIS

### ▲ Recommendation

We advise that you check the fuel injection system. The oil 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

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

### ▲ Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>TO50002125</b>	TO50000832	---
Sample Date	Client Info	<b>13 Mar 2024</b>	19 Dec 2023	---
Machine Age	hrs	<b>3116</b>	2717	---
Oil Age	hrs	<b>1735</b>	1336	---
Oil Changed	Client Info	<b>Changed</b>	Changed	---
Sample Status		<b>SEVERE</b>	SEVERE	---

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	<b>NEG</b>	NEG	---
Glycol	WC Method	<b>NEG</b>	NEG	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>21</b>	58	---
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	4	---
Nickel	ppm ASTM D5185m >2	<b>0</b>	<1	---
Titanium	ppm ASTM D5185m >2	<b>0</b>	<1	---
Silver	ppm ASTM D5185m >2	<b>0</b>	0	---
Aluminum	ppm ASTM D5185m >25	<b>1</b>	3	---
Lead	ppm ASTM D5185m >40	<b>0</b>	0	---
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	1	---
Tin	ppm ASTM D5185m >15	<b>0</b>	0	---
Vanadium	ppm ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<b>7</b>	31	---
Barium	ppm ASTM D5185m	<b>0</b>	0	---
Molybdenum	ppm ASTM D5185m 65	<b>54</b>	63	---
Manganese	ppm ASTM D5185m	<b>0</b>	1	---
Magnesium	ppm ASTM D5185m 1060	<b>801</b>	25	---
Calcium	ppm ASTM D5185m 1140	<b>1140</b>	1768	---
Phosphorus	ppm ASTM D5185m 1170	<b>974</b>	821	---
Zinc	ppm ASTM D5185m 1230	<b>1175</b>	1005	---
Sulfur	ppm ASTM D5185m 3130	<b>3729</b>	4065	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>5</b>	8	---
Sodium	ppm ASTM D5185m	<b>0</b>	<1	---
Potassium	ppm ASTM D5185m >20	<b>0</b>	1	---
Fuel	% ASTM D3524 >5	<b>▲ 11.7</b>	<b>▲ 17.0</b>	---

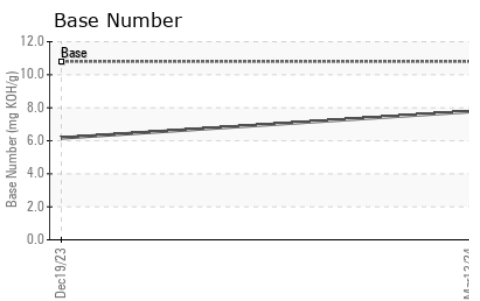
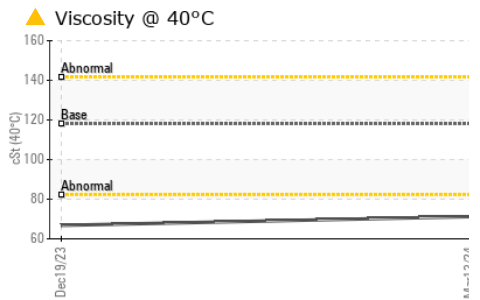
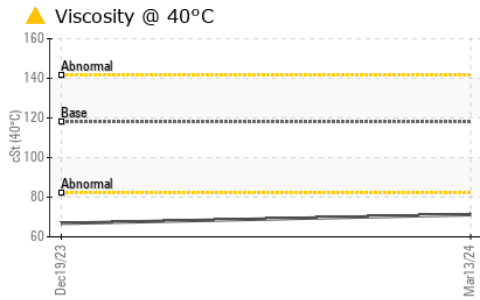
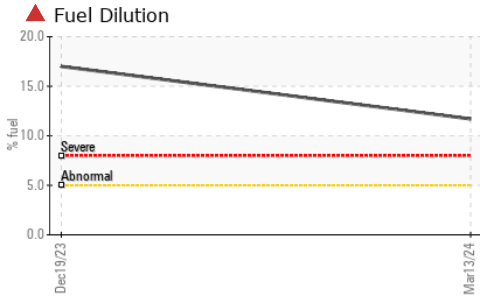
## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.3</b>	0.5	---
Nitration	Abs/cm *ASTM D7624 >20	<b>12.4</b>	14.4	---
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>23.2</b>	32.4	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>24.3</b>	35.5	---
Base Number (BN)	mg KOH/g ASTM D2896 10.8	<b>7.77</b>	6.17	---

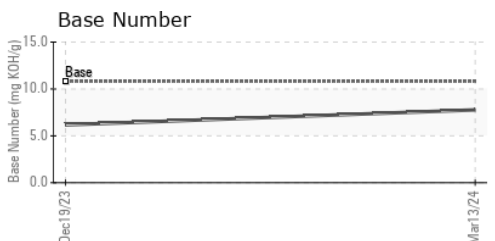
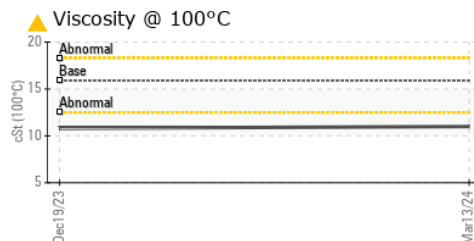
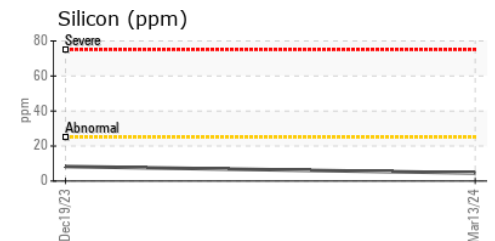
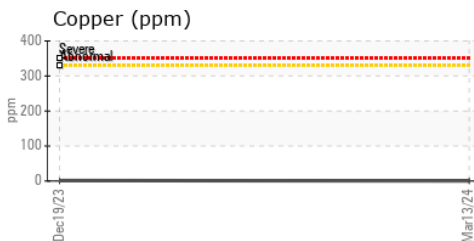
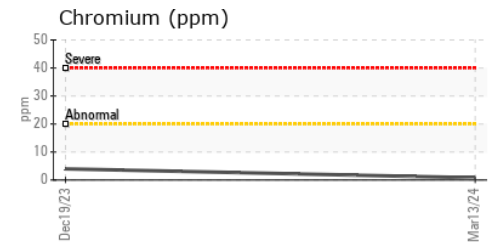
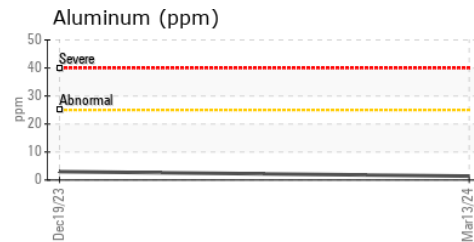
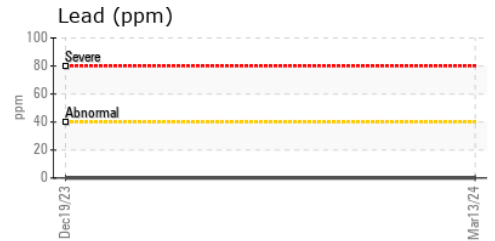
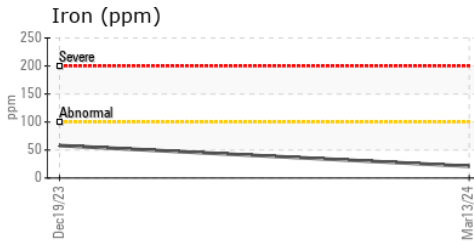
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
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	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	118	▲ 71.2	▲ 66.8
Visc @ 100°C	cSt	ASTM D445	15.9	▲ 11.0	▲ 10.8
Viscosity Index (VI)	Scale	ASTM D2270	143	144	152

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO50002125 **Received** : 20 Mar 2024  
**Lab Number** : 06124380 **Tested** : 27 Mar 2024  
**Unique Number** : 10938531 **Diagnosed** : 27 Mar 2024 - Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: 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)

T:  
F: