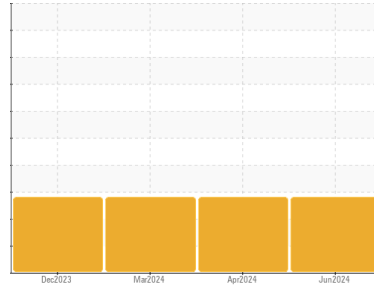


# OIL ANALYSIS REPORT

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. 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**

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

**▲ 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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>TO10003533</b>	TO10003475	TO50002125
Sample Date	Client Info			<b>11 Jun 2024</b>	01 Apr 2024	13 Mar 2024
Machine Age	hrs	Client Info		<b>3824</b>	9520	3116
Oil Age	hrs	Client Info		<b>372</b>	336	1735
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>SEVERE</b>	SEVERE	SEVERE

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>28</b>	13	21
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>4</b>	<1	1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

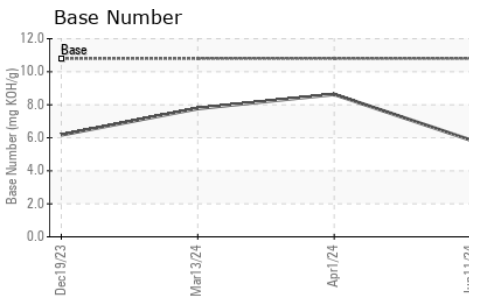
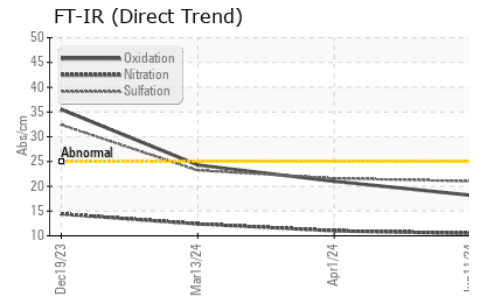
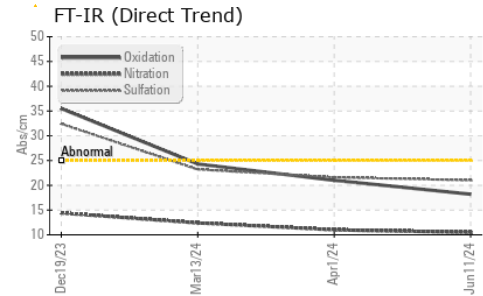
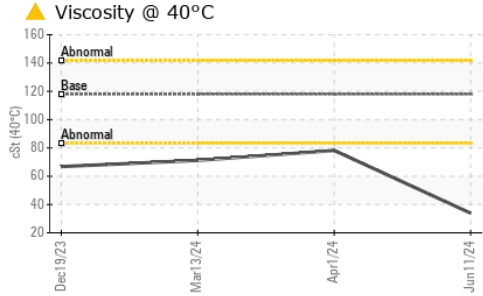
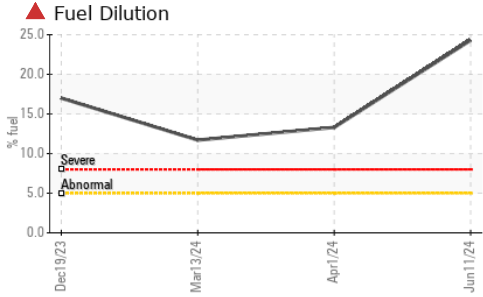
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>15</b>	0	7
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	65	<b>54</b>	57	54
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1060	<b>631</b>	888	801
Calcium	ppm	ASTM D5185m	1140	<b>1064</b>	1063	1140
Phosphorus	ppm	ASTM D5185m	1170	<b>814</b>	982	974
Zinc	ppm	ASTM D5185m	1230	<b>978</b>	1083	1175
Sulfur	ppm	ASTM D5185m	3130	<b>3532</b>	3482	3729

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>5</b>	3	5
Sodium	ppm	ASTM D5185m		<b>2</b>	<1	0
Potassium	ppm	ASTM D5185m	>20	<b>7</b>	0	0
Fuel	%	ASTM D3524	>5	<b>▲ 24.3</b>	▲ 13.3	▲ 11.7

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.5</b>	11.0	12.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.0</b>	21.6	23.2

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.2</b>	21.0	24.3
Base Number (BN)	mg KOH/g	ASTM D2896	10.8	<b>5.86</b>	8.63	7.77

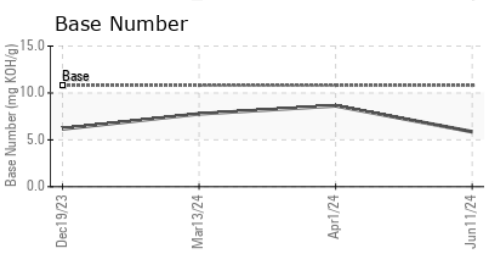
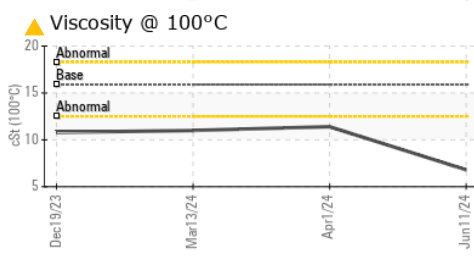
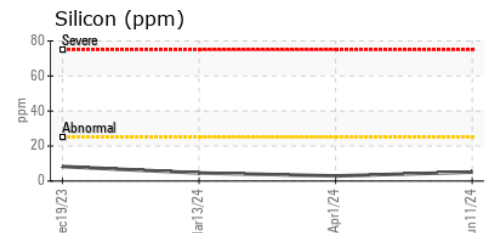
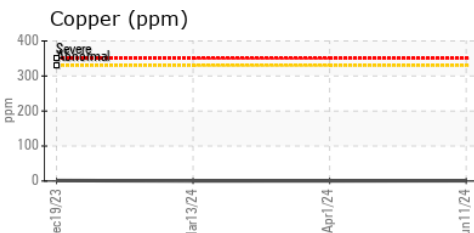
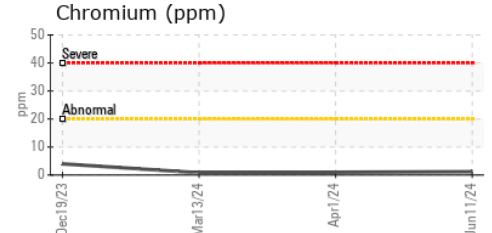
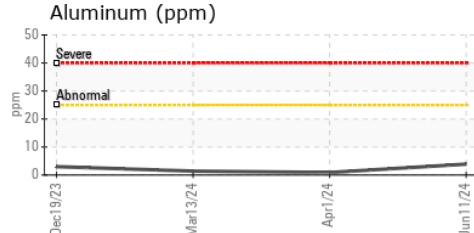
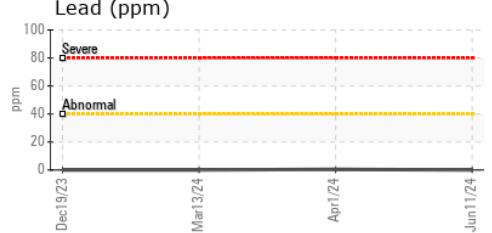
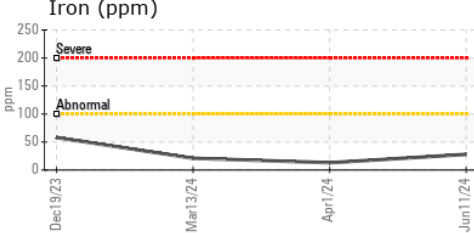
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	118	▲ 33.9	▲ 78.2
Visc @ 100°C	cSt	ASTM D445	15.9	▲ 6.8	▲ 11.4
Viscosity Index (VI)	Scale	ASTM D2270	143	164	137

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO10003533 **Received** : 12 Jun 2024  
**Lab Number** : 06208005 **Tested** : 19 Jun 2024  
**Unique Number** : 11075466 **Diagnosed** : 19 Jun 2024 - Jonathan Hester  
**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)