

# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**451349**  
Component  
**Diesel Engine**  
Fluid  
**TULCO LUBSOIL CK-4 15W40 (13 GAL)**

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

There is no indication of any contamination in the oil.

**Fluid Condition**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>TO50002382</b>	---	---
Sample Date	Client Info			<b>23 May 2024</b>	---	---
Machine Age	hrs	Client Info		<b>52</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed	Client Info			<b>Changed</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>3.0		<b>&lt;1.0</b>	---	---
Water	WC Method	>0.2		<b>NEG</b>	---	---
Glycol	WC Method			<b>NEG</b>	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	<b>27</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	---	---
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	---	---
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185m	>330	<b>2</b>	---	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---

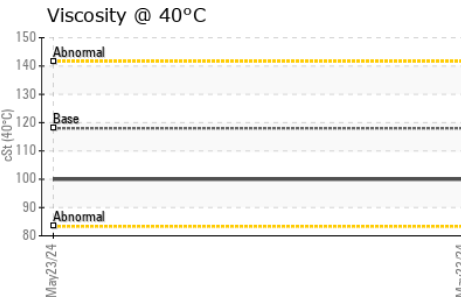
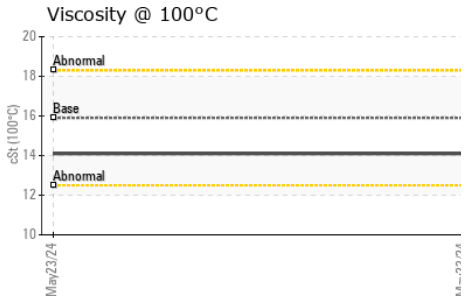
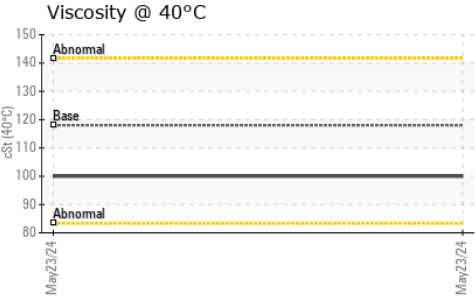
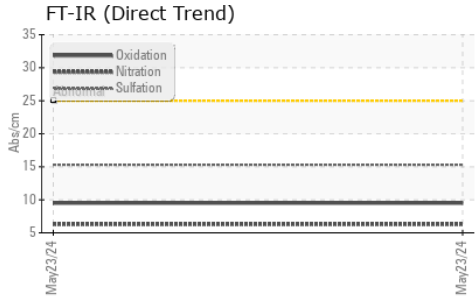
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	65	<b>7</b>	---	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m	1060	<b>41</b>	---	---
Calcium	ppm	ASTM D5185m	1140	<b>2252</b>	---	---
Phosphorus	ppm	ASTM D5185m	1170	<b>868</b>	---	---
Zinc	ppm	ASTM D5185m	1230	<b>1076</b>	---	---
Sulfur	ppm	ASTM D5185m	3130	<b>4095</b>	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>12</b>	---	---
Sodium	ppm	ASTM D5185m		<b>19</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>10</b>	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	<b>0.1</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.3</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>15.3</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>9.5</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.8	<b>9.64</b>	---	---

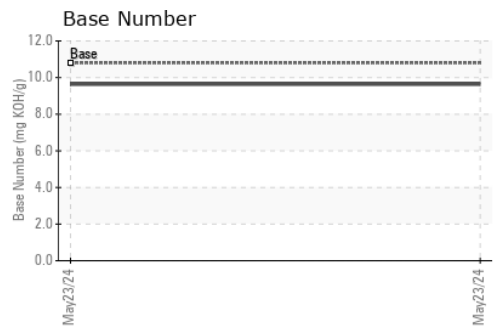
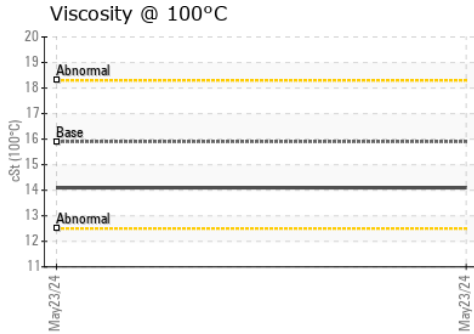
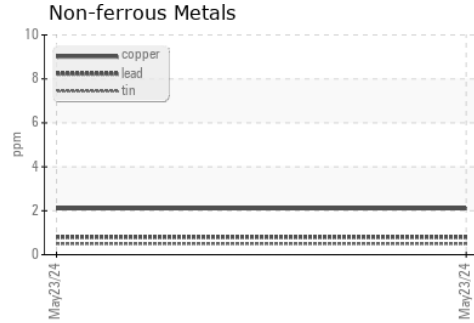
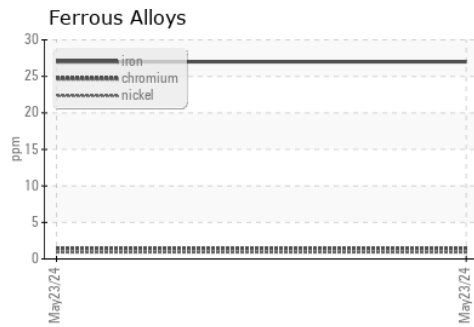
# OIL ANALYSIS REPORT



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	100	---	---
Visc @ 100°C	cSt	ASTM D445	15.9	14.1	---	---
Viscosity Index (VI)	Scale	ASTM D2270	143	143	---	---

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO50002382      **Received** : 11 Jun 2024  
**Lab Number** : **06206748**      **Tested** : 13 Jun 2024  
**Unique Number** : 11074209      **Diagnosed** : 13 Jun 2024 - Sean Felton  
**Test Package** : IND 2 ( Additional Tests: KV40, VI )

**KLX ENERGY SERVICES**  
 701 N MAIN  
 UNION CITY, OK  
 US 73090-9657  
 Contact: FRANKIE GOAD  
 frankie.goad@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)