

OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



Machine Id
891-2
Component
Transmission
Fluid
TULCO LUBSOIL TO-4 30 (40)



DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: Didn't have the oil to change it)

Wear
The copper level is abnormal. Clutch disc wear or oil cooler leaching indicated.

Contamination
There is no indication of any contamination in the fluid.

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION method limit/base current history1 history2

Sample Number	Client Info		TO50002068	---	---
Sample Date	Client Info		13 Feb 2024	---	---
Machine Age	hrs	Client Info	9090	---	---
Oil Age	hrs	Client Info	1646	---	---
Oil Changed		Client Info	N/A	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION method limit/base current history1 history2

Water	WC Method	>0.1	NEG	---	---
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WEAR METALS method limit/base current history1 history2

PQ		ASTM D8184		24	---	---
Iron	ppm	ASTM D5185m	>200	47	---	---
Chromium	ppm	ASTM D5185m	>10	<1	---	---
Nickel	ppm	ASTM D5185m		0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>50	2	---	---
Lead	ppm	ASTM D5185m	>50	7	---	---
Copper	ppm	ASTM D5185m	>200	▲ 348	---	---
Tin	ppm	ASTM D5185m	>10	1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
Cadmium	ppm	ASTM D5185m		0	---	---

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185m		5	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		243	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m	9	<1	---	---
Calcium	ppm	ASTM D5185m	4500	3392	---	---
Phosphorus	ppm	ASTM D5185m	1150	934	---	---
Zinc	ppm	ASTM D5185m	1250	1099	---	---
Sulfur	ppm	ASTM D5185m	4500	5437	---	---

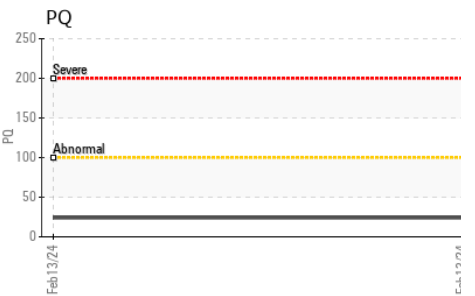
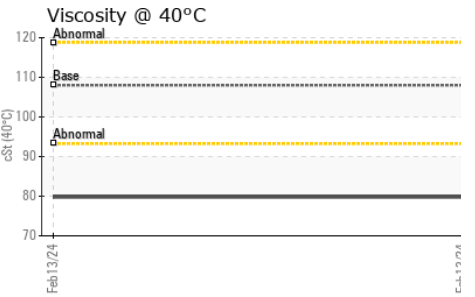
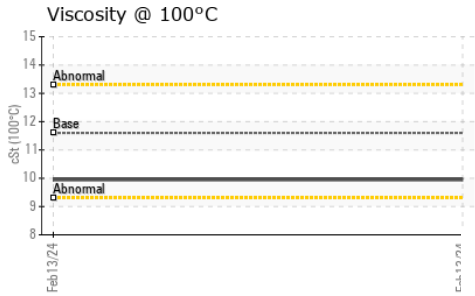
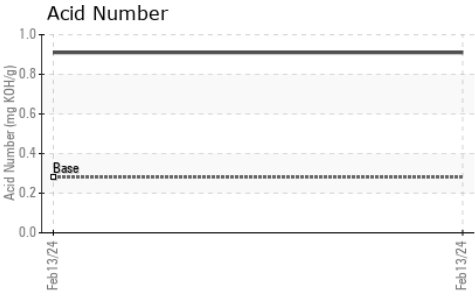
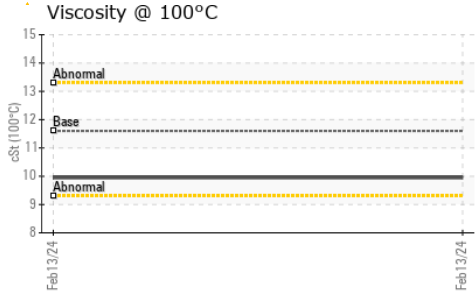
CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185m	>50	9	---	---
Sodium	ppm	ASTM D5185m		3	---	---
Potassium	ppm	ASTM D5185m	>20	0	---	---

FLUID DEGRADATION method limit/base current history1 history2

Acid Number (AN)	mg KOH/g	ASTM D8045	0.28	0.91	---	---
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OIL ANALYSIS REPORT

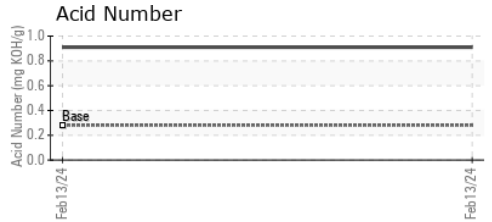
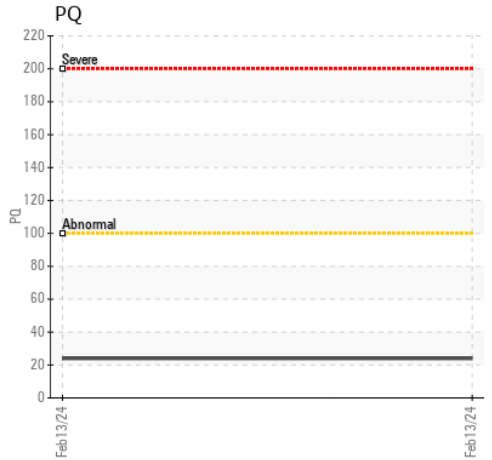
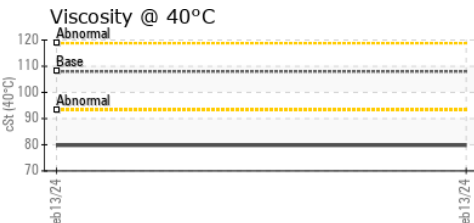
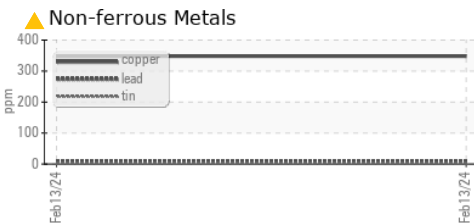
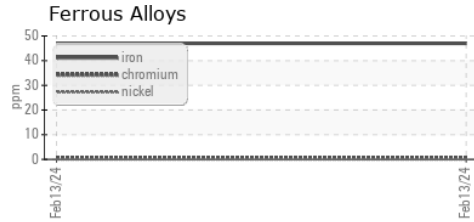


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	108	79.8	---
Visc @ 100°C	cSt	ASTM D445	11.6	9.95	---
Viscosity Index (VI)	Scale	ASTM D2270	94	104	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50002068 **Received** : 22 Feb 2024
Lab Number : 06097309 **Tested** : 27 Feb 2024
Unique Number : 10890162 **Diagnosed** : 27 Feb 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: KV100, PQ, VI)

KLX ENERGY SERVICES
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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)