



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
LONGVIEW
Machine Id
TOTAL EQUIPMET 3502
Component
Pump Drive
Fluid
TULCO LUBSOIL 4220 SYN GEAR 220 (150 GAL)

RECOMMENDATION

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		TO50002040	---	---
Sample Date		Client Info		19 Dec 2023	---	---
Machine Age	hrs	Client Info		11344	---	---
Oil Age	hrs	Client Info		1196	---	---
Filter Age	hrs	Client Info		1196	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

The tin level is abnormal. All other component wear rates are normal.

PQ		ASTM D8184		15	---	---
Iron	ppm	ASTM D5185m	>150	75	---	---
Chromium	ppm	ASTM D5185m	>10	<1	---	---
Nickel	ppm	ASTM D5185m	>10	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		<1	---	---
Aluminum	ppm	ASTM D5185m	>25	6	---	---
Lead	ppm	ASTM D5185m	>100	21	---	---
Copper	ppm	ASTM D5185m	>50	42	---	---
Tin	ppm	ASTM D5185m	>10	▲ 87	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

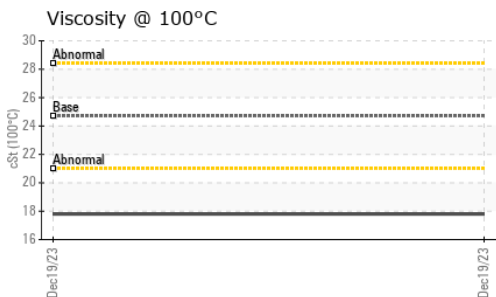
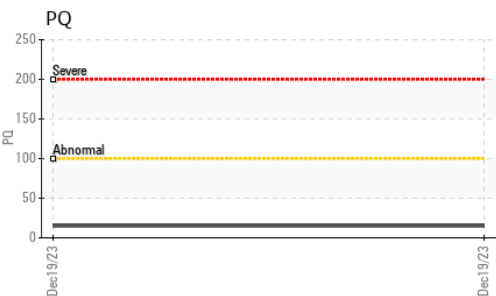
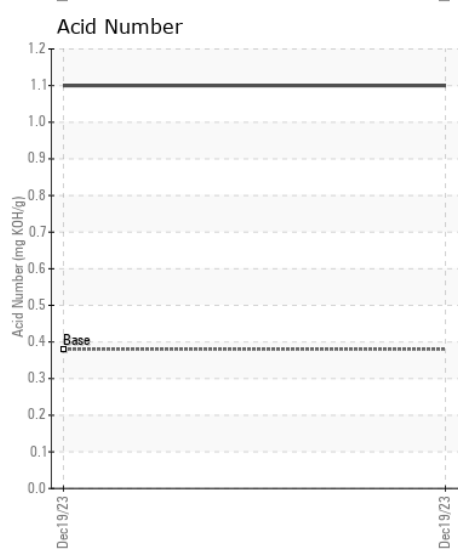
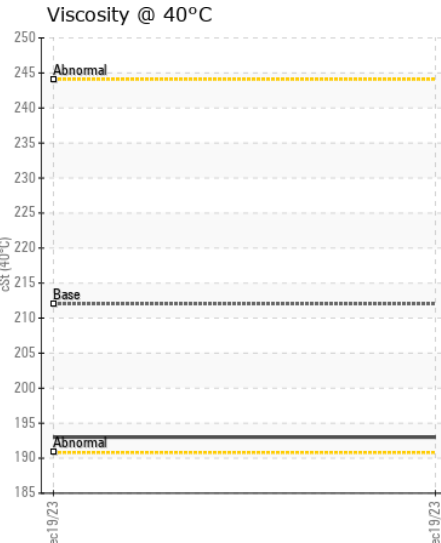
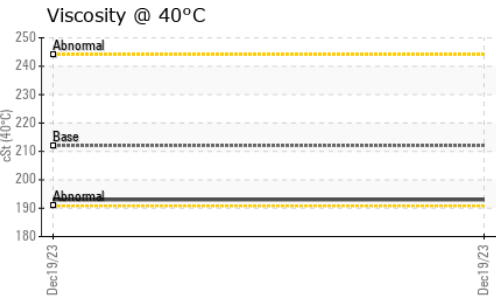
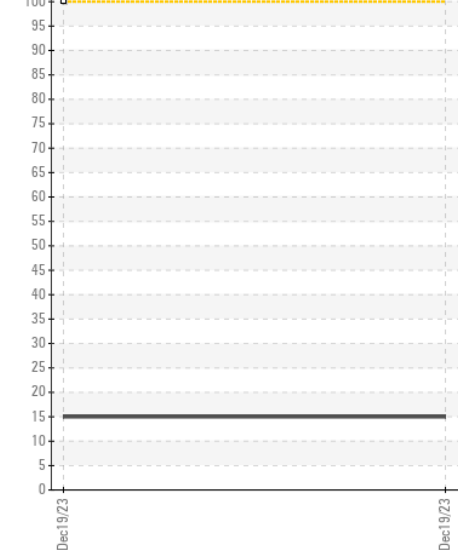
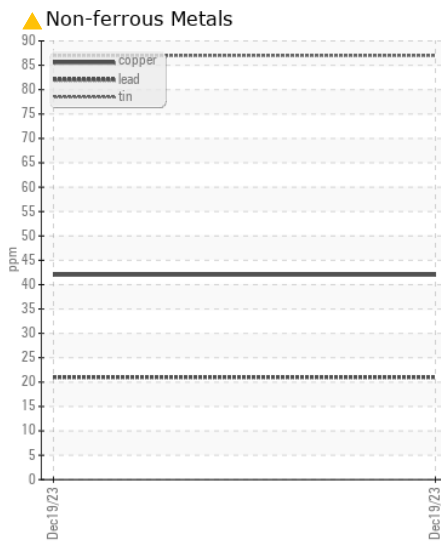
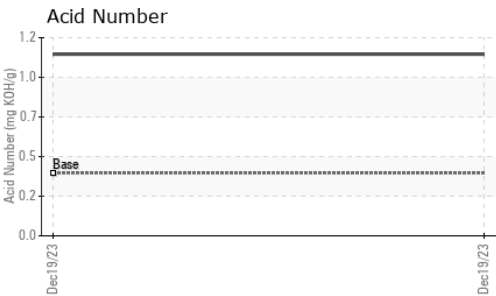
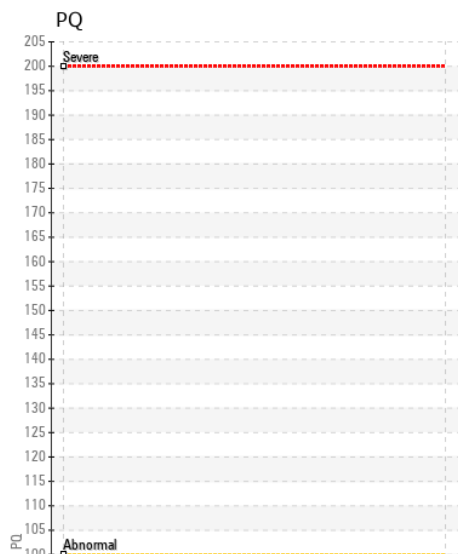
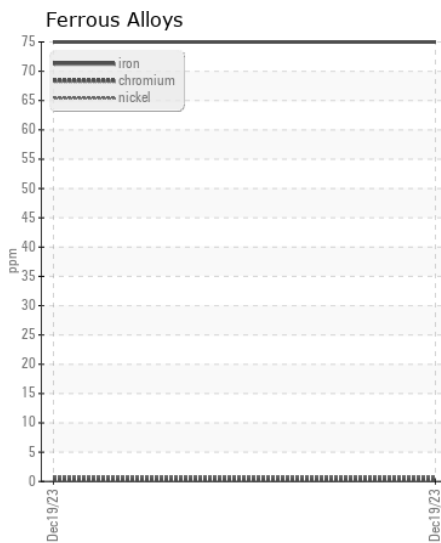
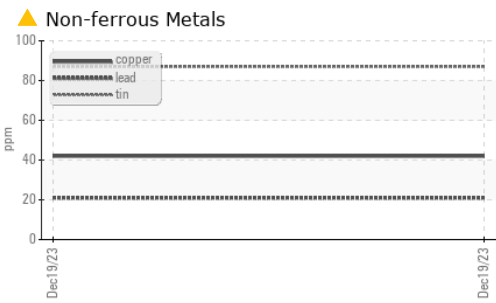
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	7	---	---
Potassium	ppm	ASTM D5185m	>20	1	---	---
Water		WC Method	>0.1	NEG	---	---
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	---	---

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		1	---	---
Boron	ppm	ASTM D5185m		2	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		487	---	---
Manganese	ppm	ASTM D5185m		2	---	---
Magnesium	ppm	ASTM D5185m		10	---	---
Calcium	ppm	ASTM D5185m		62	---	---
Phosphorus	ppm	ASTM D5185m	230	771	---	---
Zinc	ppm	ASTM D5185m		125	---	---
Sulfur	ppm	ASTM D5185m	2530	22313	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	.380	1.10	---	---
Visc @ 40°C	cSt	ASTM D445	212	193	---	---
Visc @ 100°C	cSt	ASTM D445	24.7	17.8	---	---
Viscosity Index (VI)	Scale	ASTM D2270	146	99	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50002040 **Received** : 21 Dec 2023
Lab Number : 06042256 **Diagnosed** : 26 Dec 2023
Unique Number : 10802864 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KV100, PQ, 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: