



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
EMPE
Machine Id
P210-11-1042 (S/N V456)
Component
Hydraulic System
Fluid
TULCO LUBSOIL SUPER HYDRAULIC AW 68 (200 GAL)

RECOMMENDATION

The 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		TO50000382	---	---
Sample Date		Client Info		25 Feb 2024	---	---
Machine Age	hrs	Client Info		11798	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	0	---	---
Chromium	ppm	ASTM D5185m	>20	0	---	---
Nickel	ppm	ASTM D5185m	>20	0	---	---
Titanium	ppm	ASTM D5185m		0	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>20	0	---	---
Lead	ppm	ASTM D5185m	>20	0	---	---
Copper	ppm	ASTM D5185m	>20	13	---	---
Tin	ppm	ASTM D5185m	>20	0	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

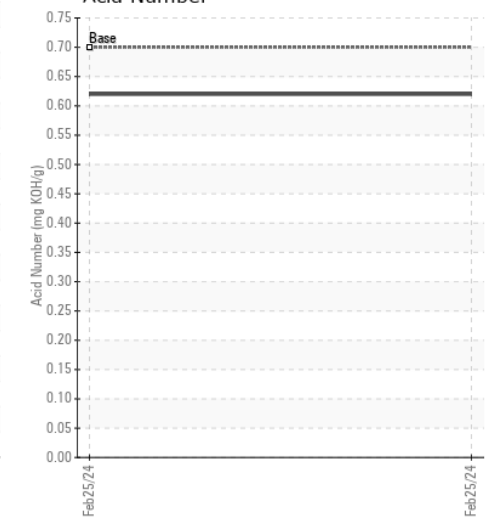
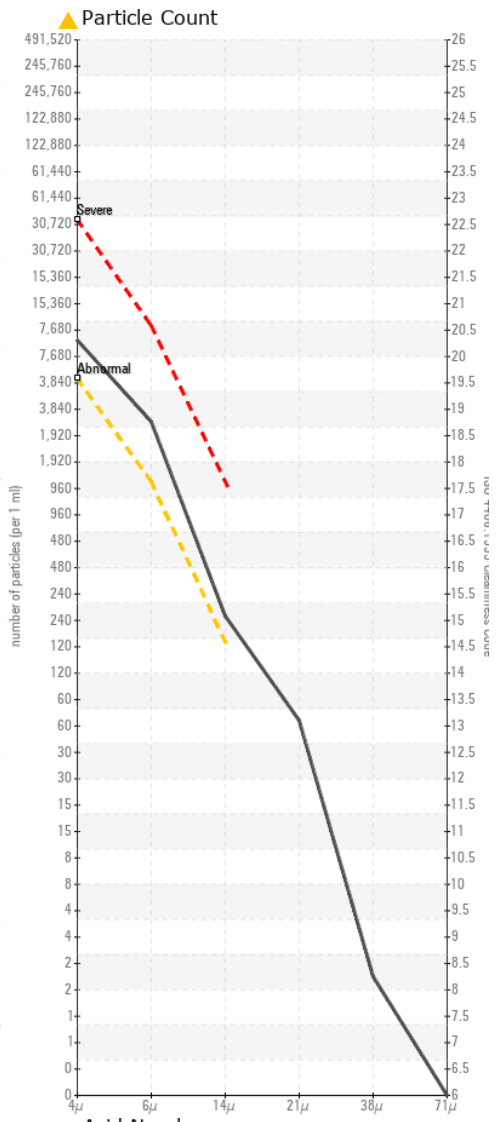
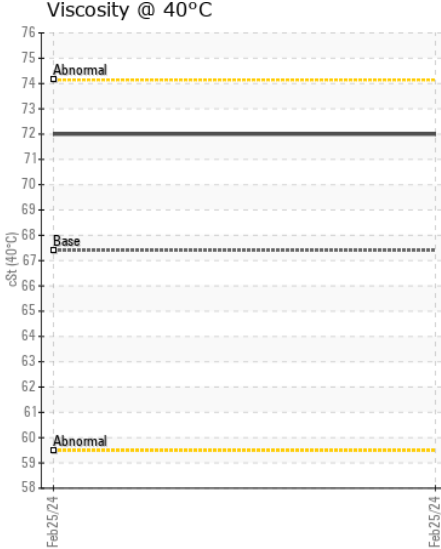
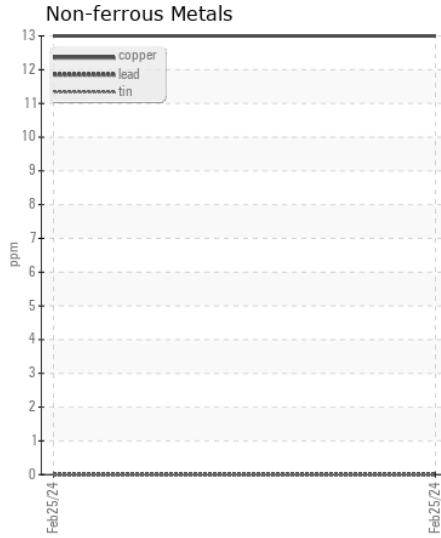
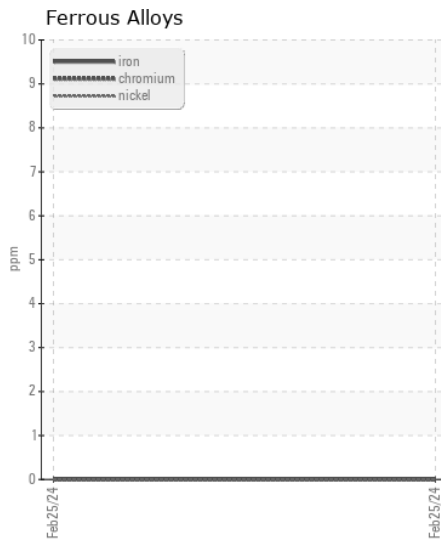
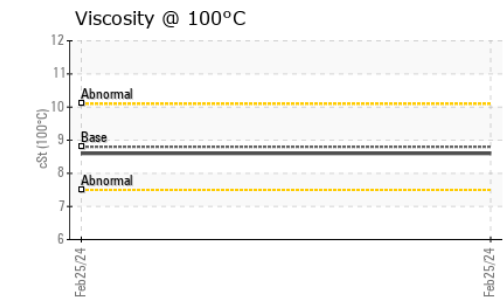
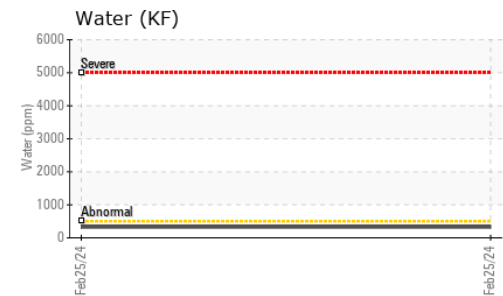
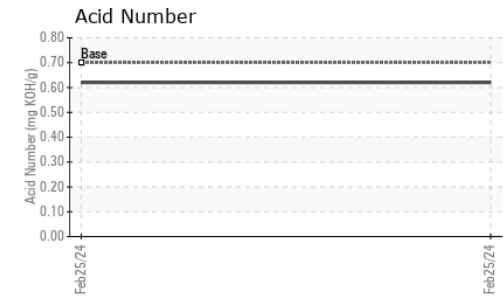
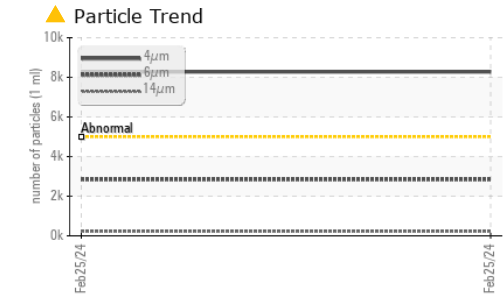
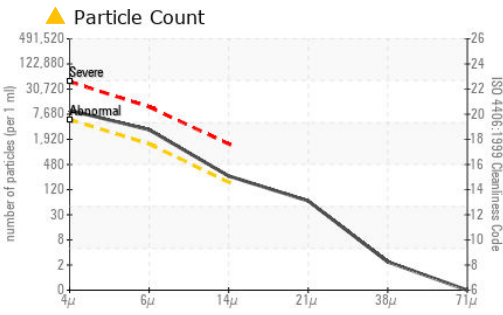
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

Silicon	ppm	ASTM D5185m	>15	8	---	---
Potassium	ppm	ASTM D5185m	>20	0	---	---
Water	%	ASTM D6304	>0.05	0.032	---	---
ppm Water	ppm	ASTM D6304	>500	328	---	---
Particles >4µm		ASTM D7647	>5000	8273	---	---
Particles >6µm		ASTM D7647	>1300	2847	---	---
Particles >14µm		ASTM D7647	>160	224	---	---
Particles >21µm		ASTM D7647	>40	57	---	---
Particles >38µm		ASTM D7647	>10	2	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	20/19/15	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	LIGHT	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---	---

FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m		3	---	---
Boron	ppm	ASTM D5185m		0	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		0	---	---
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m		58	---	---
Calcium	ppm	ASTM D5185m		47	---	---
Phosphorus	ppm	ASTM D5185m	425	268	---	---
Zinc	ppm	ASTM D5185m	500	318	---	---
Sulfur	ppm	ASTM D5185m	1900	1461	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	0.7	0.62	---	---
Visc @ 40°C	cSt	ASTM D445	67.4	72.0	---	---
Visc @ 100°C	cSt	ASTM D445	8.8	8.6	---	---
Viscosity Index (VI)	Scale	ASTM D2270	102	88	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50000382 **Received** : 29 Feb 2024
Lab Number : 06105200 **Tested** : 01 Mar 2024
Unique Number : 10903430 **Diagnosed** : 01 Mar 2024 - Wes Davis
Test Package : IND 2 (Additional Tests: KF, KV100, VI)

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Certificate L2367
 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)