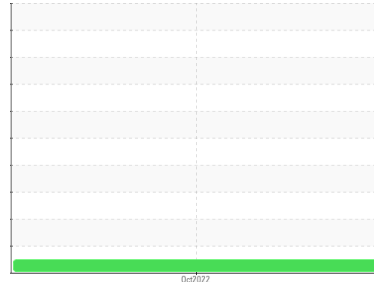


OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
COLGATE 3

Component
Hydraulic System

Fluid
TULCO LUBSOIL SUPER HYDRAULIC AW 46 (4 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		TO20000180	---	---
Sample Date	Client Info		11 Oct 2022	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	3704	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			NORMAL	---	---

WEAR METALS

	method	limit/base	current	history1	history2
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	0	---
Tin	ppm	ASTM D5185m	>20	0	---
Vanadium	ppm	ASTM D5185m		0	---
Cadmium	ppm	ASTM D5185m		0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	---
Barium	ppm	ASTM D5185m		0	---
Molybdenum	ppm	ASTM D5185m		0	---
Manganese	ppm	ASTM D5185m		<1	---
Magnesium	ppm	ASTM D5185m		100	---
Calcium	ppm	ASTM D5185m		72	---
Phosphorus	ppm	ASTM D5185m	450	318	---
Zinc	ppm	ASTM D5185m	540	390	---
Sulfur	ppm	ASTM D5185m	1825	2283	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<1	---
Sodium	ppm	ASTM D5185m		2	---
Potassium	ppm	ASTM D5185m	>20	1	---
Water	%	ASTM D6304	>0.05	0.006	---
ppm Water	ppm	ASTM D6304	>500	63.6	---

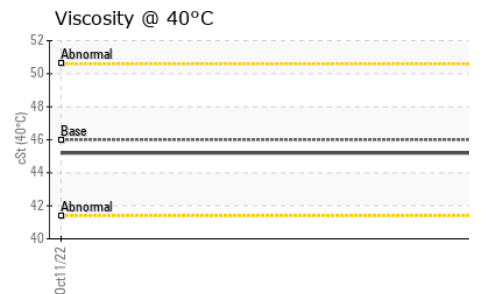
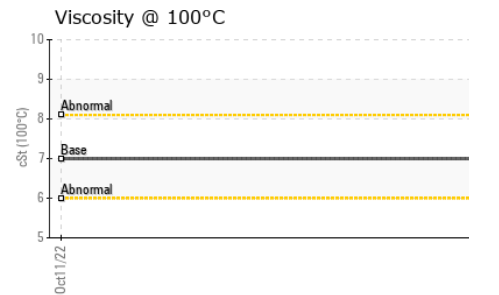
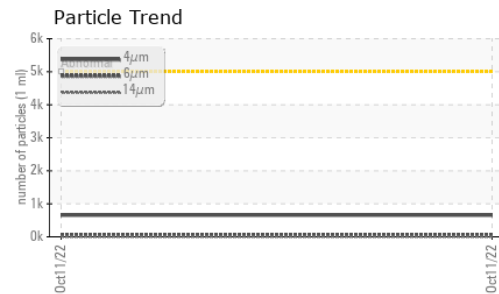
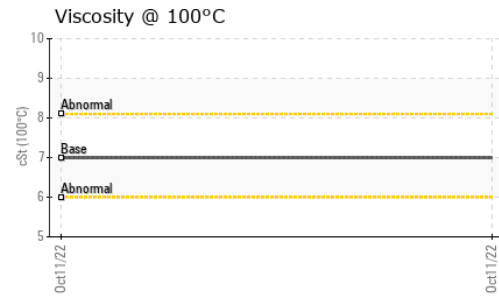
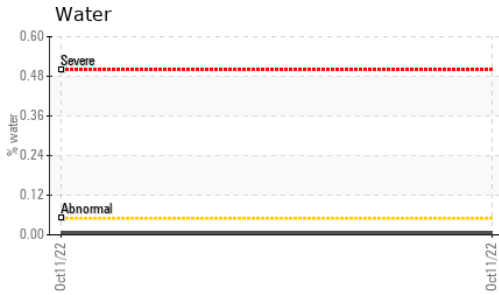
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	656	---	---
Particles >6µm	ASTM D7647	>1300	47	---	---
Particles >14µm	ASTM D7647	>160	5	---	---
Particles >21µm	ASTM D7647	>40	2	---	---
Particles >38µm	ASTM D7647	>10	0	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	17/13/10	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	.7	0.21	---

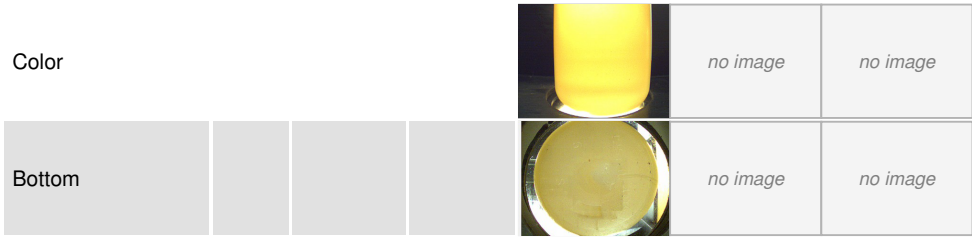
OIL ANALYSIS REPORT



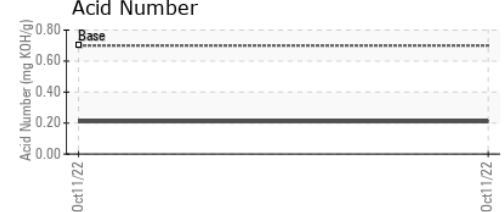
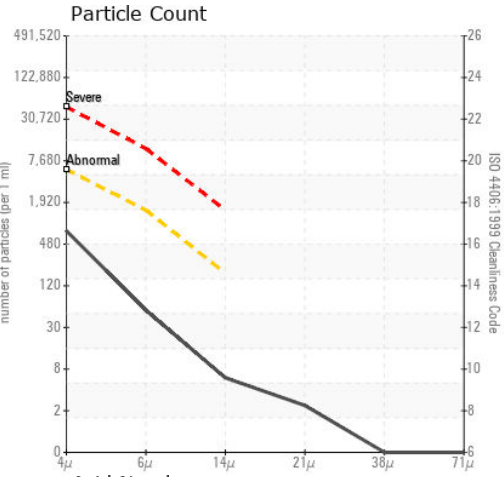
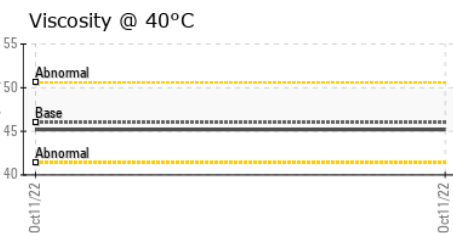
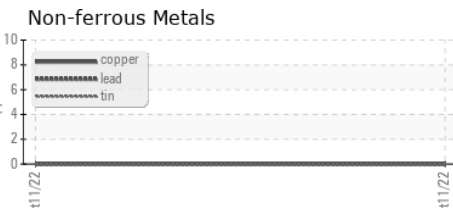
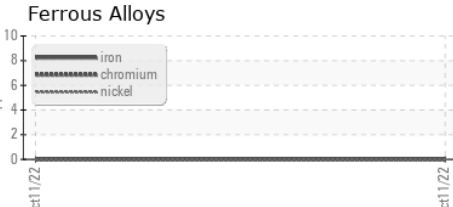
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	45.2	---
Visc @ 100°C	cSt	ASTM D445	7	7	---
Viscosity Index (VI)	Scale	ASTM D2270	109	112	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO20000180 **Received** : 10 May 2023
Lab Number : 05843971 **Diagnosed** : 10 Aug 2023
Unique Number : 10468078 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: KF, KV100, VI)

CITY OF OKC - SE WATER
 500 W MAIN ST, SUITE 100
 OKLAHOMA CITY, OK
 US 73102
 Contact: MITCHEL LOGAN

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: