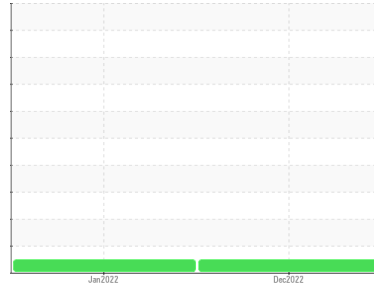


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
EMB 190 1_31
Component
Hydraulic System
Fluid
TULCO LUBSOIL LUBVIS 746 (500 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. The amount and size of particulates present in the system are 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			TO50000849	TO90002013	---
Sample Date	Client Info			02 Dec 2022	31 Jan 2022	---
Machine Age	hrs	Client Info		0	0	---
Oil Age	hrs	Client Info		0	0	---
Oil Changed	Client Info			N/A	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	2	<1	---
Chromium	ppm	ASTM D5185m	>20	<1	0	---
Nickel	ppm	ASTM D5185m	>20	<1	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m		2	<1	---
Aluminum	ppm	ASTM D5185m	>20	0	0	---
Lead	ppm	ASTM D5185m	>20	2	1	---
Copper	ppm	ASTM D5185m	>20	1	5	---
Tin	ppm	ASTM D5185m	>20	<1	<1	---
Antimony	ppm	ASTM D5185m		---	0	---
Vanadium	ppm	ASTM D5185m		<1	0	---
Cadmium	ppm	ASTM D5185m		<1	0	---

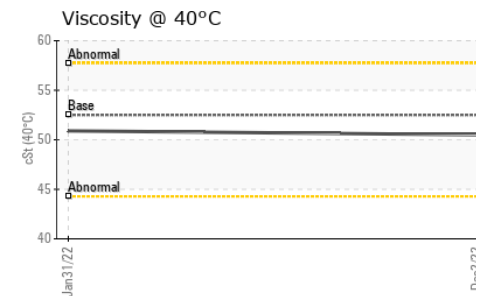
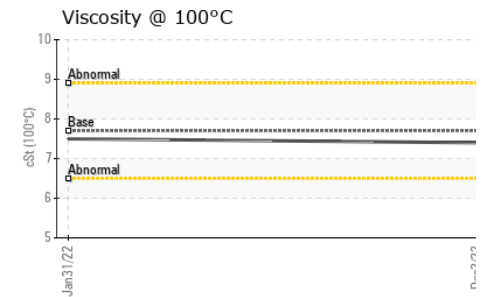
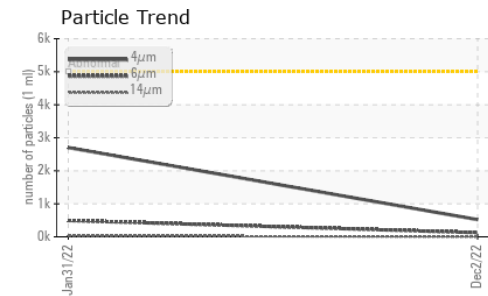
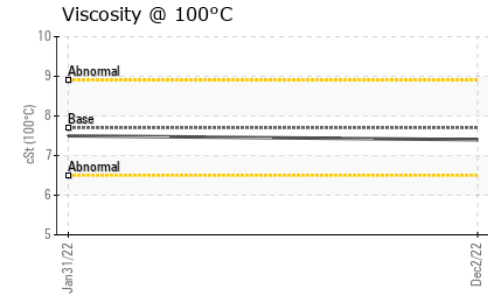
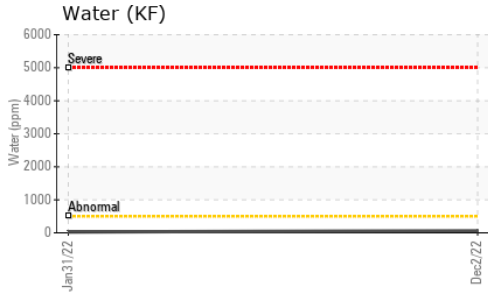
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		2	<1	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		<1	0	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		12	0	---
Calcium	ppm	ASTM D5185m		0	1	---
Phosphorus	ppm	ASTM D5185m	240	44	237	---
Zinc	ppm	ASTM D5185m		7	22	---
Sulfur	ppm	ASTM D5185m	7560	514	6108	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	1	3	---
Sodium	ppm	ASTM D5185m		9	1	---
Potassium	ppm	ASTM D5185m	>20	30	0	---
Water	%	ASTM D6304	>0.05	0.006	0.003	---
ppm Water	ppm	ASTM D6304	>500	66.3	25.2	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	520	2703	---
Particles >6µm		ASTM D7647	>1300	125	493	---
Particles >14µm		ASTM D7647	>160	4	28	---
Particles >21µm		ASTM D7647	>40	1	9	---
Particles >38µm		ASTM D7647	>10	0	0	---
Particles >71µm		ASTM D7647	>3	0	0	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	16/14/9	19/16/12	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.42	0.43	---

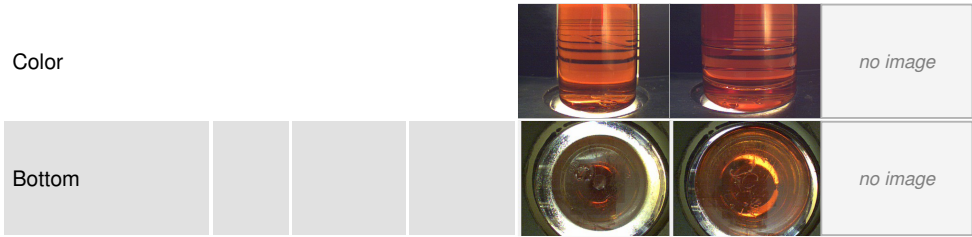
OIL ANALYSIS REPORT



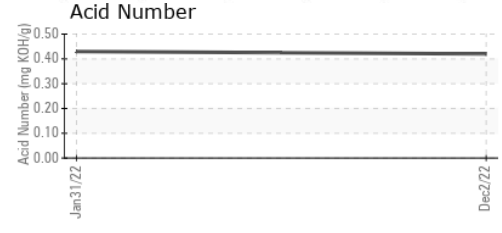
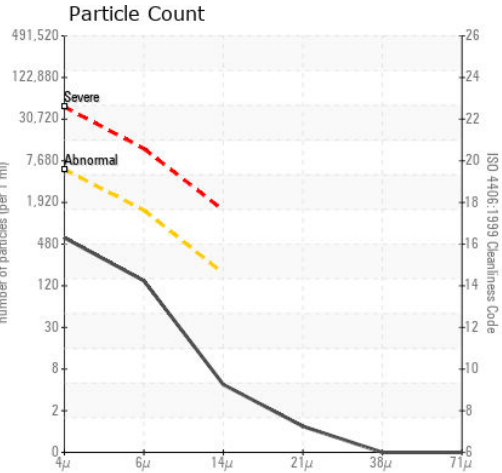
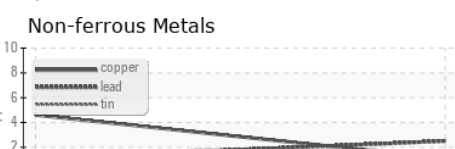
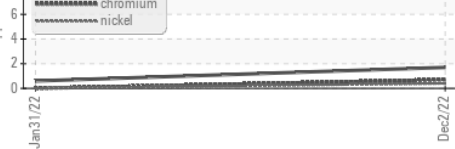
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	52.5	50.5	50.9	---
Visc @ 100°C	cSt	ASTM D445	7.7	7.4	7.5	---
Viscosity Index (VI)	Scale	ASTM D2270	111	107	109	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50000849 **Received** : 06 Dec 2022
Lab Number : **05710394** **Tested** : 09 Dec 2022
Unique Number : 10244969 **Diagnosed** : 11 Dec 2022 - Doug Bogart
Test Package : IND 2 (Additional Tests: KF, KV100, VI)

CAE SIMUFLITE
 2929 WEST AIRFIELD DR, DFW AIRPORT
 DALLAS, TX
 US 75261
 Contact: SCOTT BOYD
 scott.boyd@cae.com
 T: (817)812-6165
 F: x:

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)