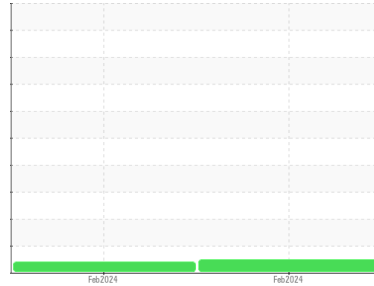


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
CFS BRANDS P-77
 Component
Hydraulic System
 Fluid
{not provided} (--- GAL)

DIAGNOSIS

Recommendation
 Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

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	TO20000295	TO20000294	---
Sample Date	Client Info	09 Feb 2024	07 Feb 2024	---
Machine Age	days	Client Info	0	0
Oil Age	days	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	---
Sample Status		NORMAL	ABNORMAL	---

WEAR METALS method limit/base current history1 history2

Iron	ppm	ASTM D5185m	>20	0	0	---
Chromium	ppm	ASTM D5185m	>20	<1	<1	---
Nickel	ppm	ASTM D5185m	>20	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>20	2	2	---
Lead	ppm	ASTM D5185m	>20	0	0	---
Copper	ppm	ASTM D5185m	>20	<1	<1	---
Tin	ppm	ASTM D5185m	>20	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		0	0	---

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185m		0	0	---
Barium	ppm	ASTM D5185m		8	8	---
Molybdenum	ppm	ASTM D5185m		0	0	---
Manganese	ppm	ASTM D5185m		0	0	---
Magnesium	ppm	ASTM D5185m		82	82	---
Calcium	ppm	ASTM D5185m		63	64	---
Phosphorus	ppm	ASTM D5185m		314	313	---
Zinc	ppm	ASTM D5185m		358	356	---
Sulfur	ppm	ASTM D5185m		1673	1641	---

CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185m	>15	0	0	---
Sodium	ppm	ASTM D5185m		0	0	---
Potassium	ppm	ASTM D5185m	>20	1	<1	---
Water	%	ASTM D6304	>0.05	0.004	0.004	---
ppm Water	ppm	ASTM D6304	>500	45	50	---

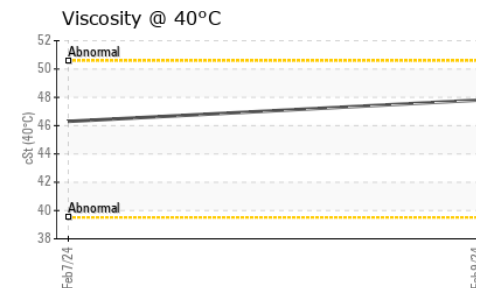
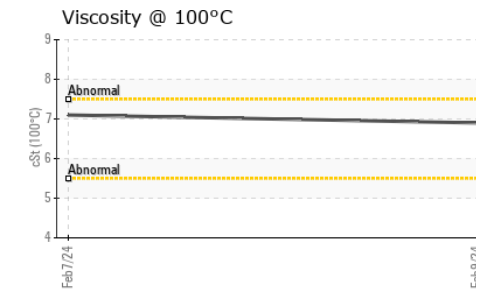
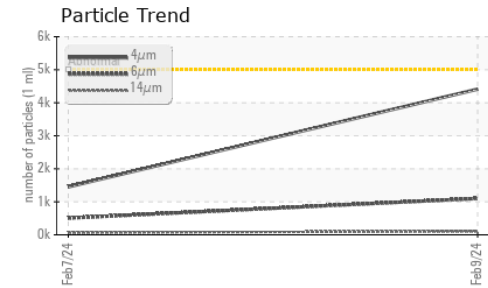
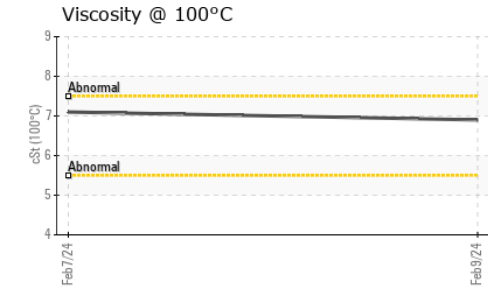
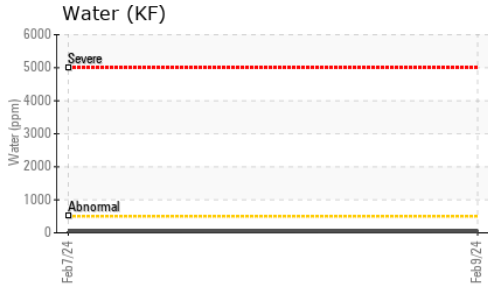
FLUID CLEANLINESS method limit/base current history1 history2

Particles >4µm	ASTM D7647	>5000	4412	1453	---
Particles >6µm	ASTM D7647	>1300	1101	507	---
Particles >14µm	ASTM D7647	>160	105	65	---
Particles >21µm	ASTM D7647	>40	40	19	---
Particles >38µm	ASTM D7647	>10	4	1	---
Particles >71µm	ASTM D7647	>3	0	0	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	19/17/14	18/16/13	---

FLUID DEGRADATION method limit/base current history1 history2

Acid Number (AN)	mg KOH/g	ASTM D8045		0.32	0.30	---
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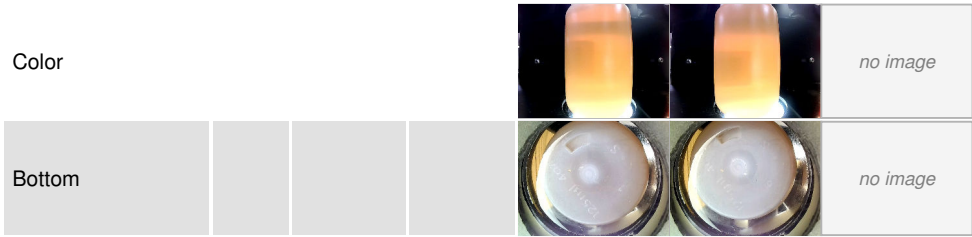
OIL ANALYSIS REPORT



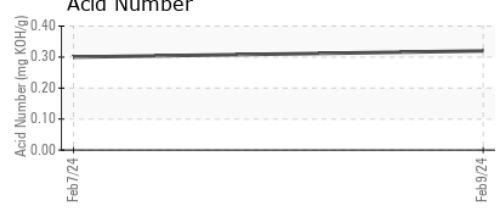
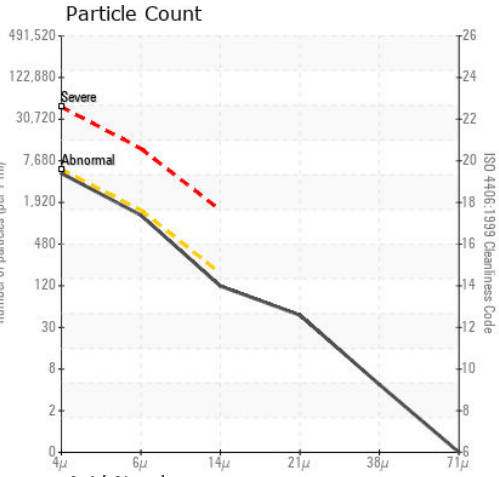
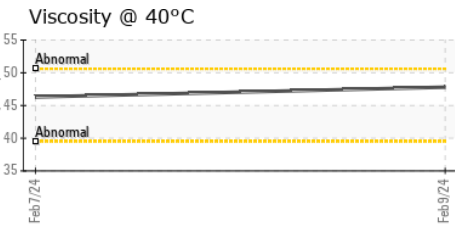
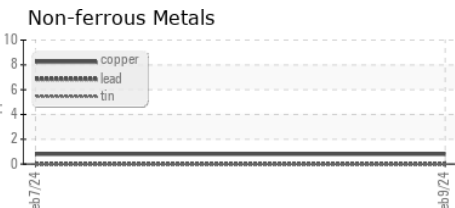
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	47.8	46.3	---
Visc @ 100°C	cSt	ASTM D445	6.9	7.1	---
Viscosity Index (VI)	Scale	ASTM D2270	98	111	---

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. : TO20000295
Lab Number : 06100897
Unique Number : 10899127
Test Package : IND 2 (Additional Tests: KF, KV100, VI)

TULCO OILS INC (002-OKLAHOMA CITY DIVISION)
 2415 S NICKLAS AVE
 OKLAHOMA CITY, OK
 US 73128
 Contact: DARRYL THOMPSON
 DARRYLTHOMPSON@TULCO.COM
 T: (405)670-6266
 F: (405)670-2526

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)