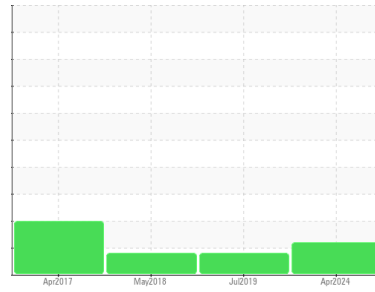


OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
TKS PRESS 1 FOLDER

Component
Hydraulic System

Fluid
TULCO LUBSOIL SUPER HYDRAULIC AW 68 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

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		TO50000872	TO5000382	TO5010025
Sample Date	Client Info		17 Apr 2024	23 Jul 2019	14 May 2018
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	14	14	12
Chromium	ppm	ASTM D5185m >10	0	<1	<1
Nickel	ppm	ASTM D5185m >10	0	<1	<1
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >10	0	<1	<1
Lead	ppm	ASTM D5185m >10	2	3	3
Copper	ppm	ASTM D5185m >75	14	10	10
Tin	ppm	ASTM D5185m >10	0	<1	<1
Antimony	ppm	ASTM D5185m	---	0	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	1	<1
Barium	ppm	ASTM D5185m	0	0	<1
Molybdenum	ppm	ASTM D5185m	0	<1	<1
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	3	5	7
Calcium	ppm	ASTM D5185m	5	3	5
Phosphorus	ppm	ASTM D5185m 425	151	178	208
Zinc	ppm	ASTM D5185m 500	138	147	183
Sulfur	ppm	ASTM D5185m 1900	5903	5728	2899

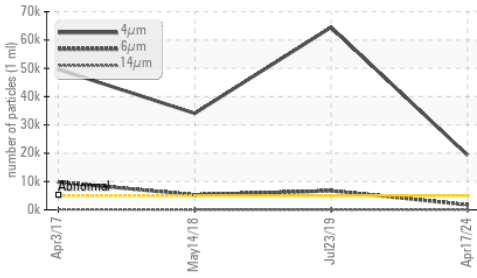
CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	13	16	18
Sodium	ppm	ASTM D5185m	0	1	1
Potassium	ppm	ASTM D5185m >20	0	1	<1
Water	%	ASTM D6304 >0.1	0.00	0.005	0.005
ppm Water	ppm	ASTM D6304 >1000	0	50	50

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 19258	▲ 64505	▲ 34084
Particles >6µm	ASTM D7647	>1300	▲ 1743	▲ 6733	▲ 5279
Particles >14µm	ASTM D7647	>160	32	39	62
Particles >21µm	ASTM D7647	>40	9	6	23
Particles >38µm	ASTM D7647	>10	1	0	6
Particles >71µm	ASTM D7647	>3	0	0	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/18/12	▲ 23/20/12	▲ 22/20/13

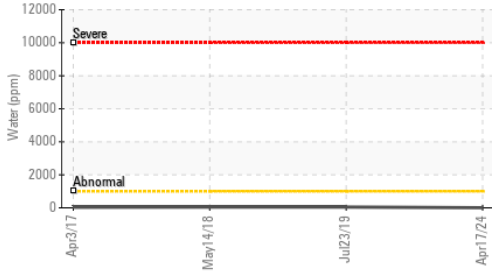
FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.7	0.34	0.358	0.412

OIL ANALYSIS REPORT

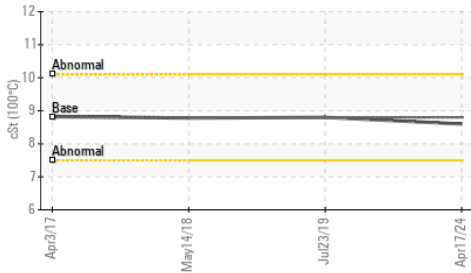
Particle Trend



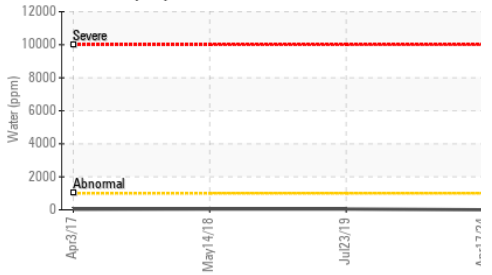
Water (KF)



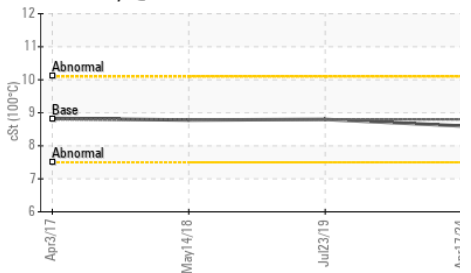
Viscosity @ 100°C



Water (KF)



Viscosity @ 100°C



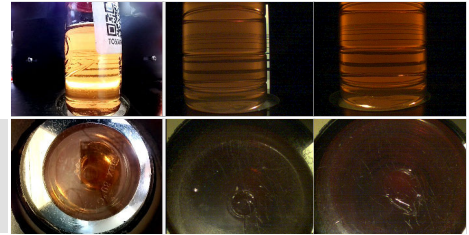
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	67.4	66.6	67.42
Visc @ 100°C	cSt	ASTM D445	8.8	8.8	8.78
Viscosity Index (VI)	Scale	ASTM D2270	102	104	102

SAMPLE IMAGES	method	limit/base	current	history1	history2
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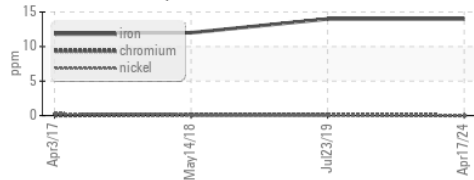
Color

Bottom

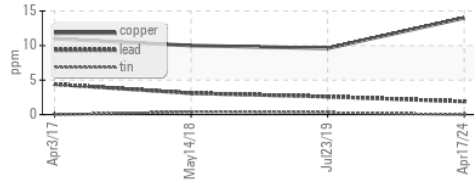


GRAPHS

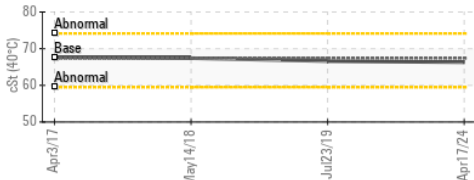
Ferrous Alloys



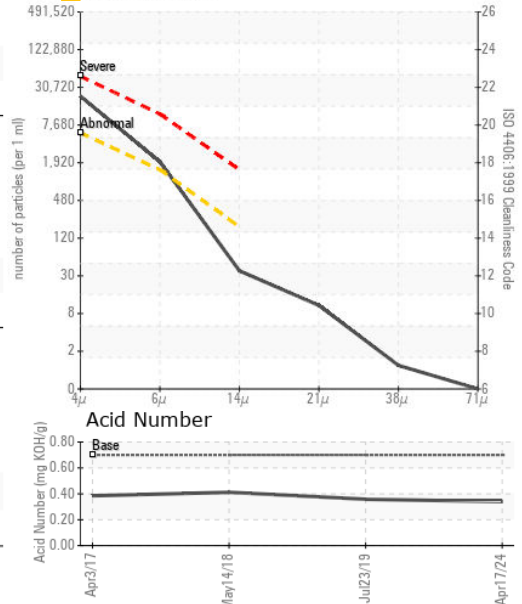
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50000872 **Received** : 22 Apr 2024
Lab Number : 06155912 **Tested** : 23 Apr 2024
Unique Number : 10991335 **Diagnosed** : 24 Apr 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, KV100, VI)

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)

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