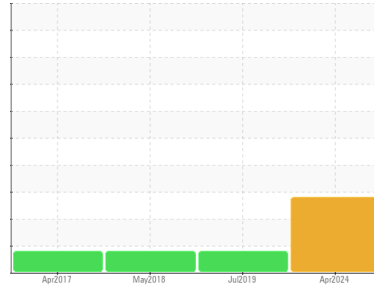


# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Machine Id  
**TKS PRESS 1 UNIT 11-12**

Component  
**Hydraulic System**

Fluid  
**TULCO LUBSOIL SUPER HYDRAULIC AW 68 (50 GAL)**

**DIAGNOSIS**

**Recommendation**

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

**Wear**

An increase in the copper level is noted. All other component wear rates are normal.

**Contamination**

There is a high amount of particulates 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			<b>TO50000871</b>	TO5000400	TO5010075
Sample Date	Client Info			<b>17 Apr 2024</b>	23 Jul 2019	14 May 2018
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<b>14</b>	18	15
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Lead	ppm	ASTM D5185m	>10	<b>8</b>	5	5
Copper	ppm	ASTM D5185m	>75	<b>75</b>	26	14
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185m		<b>---</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	<1	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	<1	<1
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>4</b>	8	8
Calcium	ppm	ASTM D5185m		<b>5</b>	6	7
Phosphorus	ppm	ASTM D5185m	425	<b>175</b>	215	222
Zinc	ppm	ASTM D5185m	500	<b>181</b>	218	210
Sulfur	ppm	ASTM D5185m	1900	<b>5194</b>	5153	2782

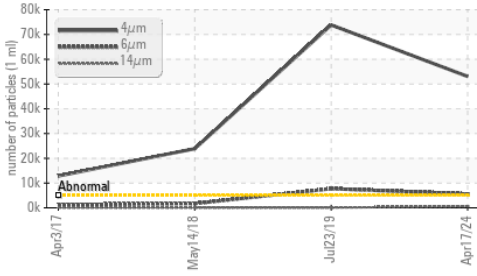
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	<b>16</b>	22	21
Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	2
Water	%	ASTM D6304	>0.1	<b>0.00</b>	0.006	0.005
ppm Water	ppm	ASTM D6304	>1000	<b>0</b>	60	50

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>▲ 53050</b>	▲ 73840	▲ 23875
Particles >6µm		ASTM D7647	>1300	<b>▲ 5593</b>	▲ 7733	● 1707
Particles >14µm		ASTM D7647	>160	<b>▲ 564</b>	78	42
Particles >21µm		ASTM D7647	>40	<b>▲ 186</b>	11	20
Particles >38µm		ASTM D7647	>10	<b>4</b>	0	5
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 23/20/16</b>	▲ 23/20/13	▲ 22/18/13

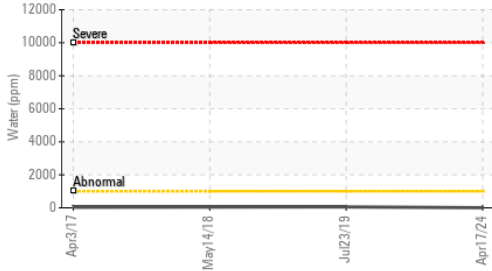
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.7	<b>0.38</b>	0.448	0.436

# OIL ANALYSIS REPORT

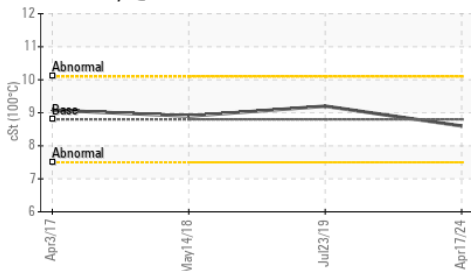
## Particle Trend



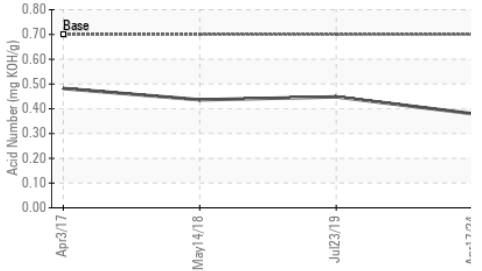
## Water (KF)



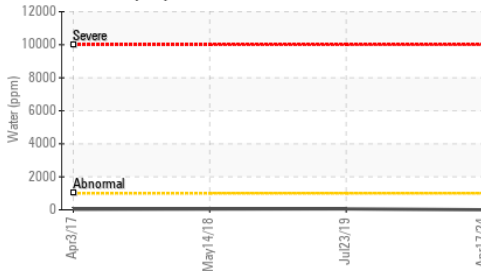
## Viscosity @ 100°C



## Acid Number



## Water (KF)



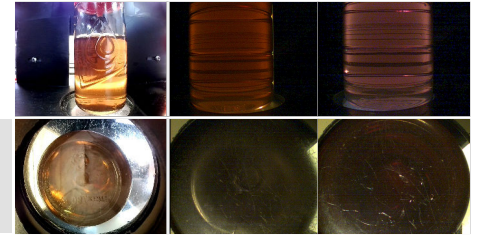
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	67.0	66.3
Visc @ 100°C	cSt	ASTM D445	8.8	8.6	9.2
Viscosity Index (VI)	Scale	ASTM D2270	102	98	115

SAMPLE IMAGES	method	limit/base	current	history1	history2
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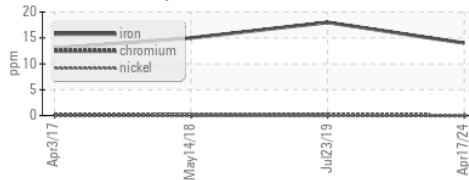
Color

Bottom

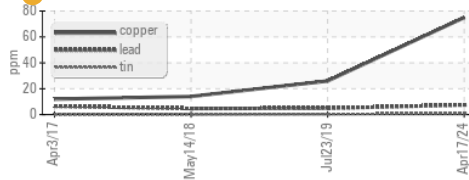


## GRAPHS

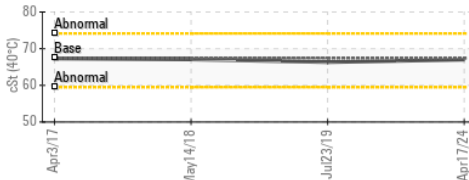
### Ferrous Alloys



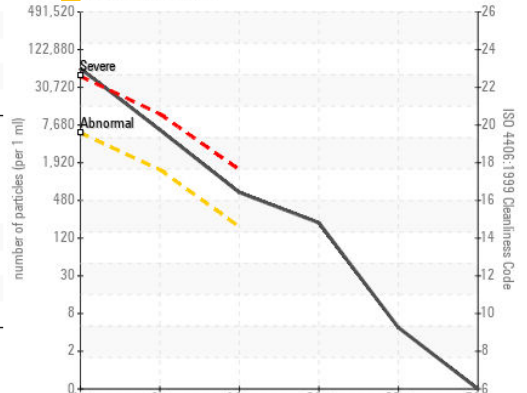
### Non-ferrous Metals



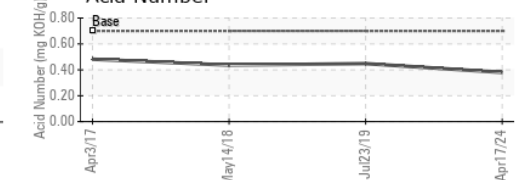
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : TO50000871

Lab Number : 06155910

Unique Number : 10991333

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)

Received : 22 Apr 2024

Tested : 23 Apr 2024

Diagnosed : 24 Apr 2024 - Don Baldrige

DALLAS MORNING NEWS

3900 W PLANO PKWY

PLANO, TX

US 75075

Contact: KENNY CLARK

kclark@dallasnews.com

T: (214)977-6929

F: (214)977-6888