

Machine Id
TKS PRESS 5 UNIT 5-6

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

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	TO50000788	TO5000415	TO5010004
Sample Date	Client Info	17 Apr 2024	23 Jul 2019	14 May 2018
Machine Age	hrs	0	0	0
Oil Age	hrs	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	18	25	28
Chromium	ppm	ASTM D5185m >10	0	<1	<1
Nickel	ppm	ASTM D5185m >10	0	<1	0
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >10	<1	<1	1
Lead	ppm	ASTM D5185m >10	2	2	3
Copper	ppm	ASTM D5185m >75	21	14	14
Tin	ppm	ASTM D5185m >10	<1	<1	0
Antimony	ppm	ASTM D5185m	---	0	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	<1	<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	6
Calcium	ppm	ASTM D5185m	4	4	5
Phosphorus	ppm	ASTM D5185m 425	158	166	186
Zinc	ppm	ASTM D5185m 500	170	150	174
Sulfur	ppm	ASTM D5185m 1900	5187	5459	2888

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >20	16	18	20
Sodium	ppm	ASTM D5185m	2	6	8
Potassium	ppm	ASTM D5185m >20	1	4	4
Water	%	ASTM D6304 >0.1	0.00	0.006	0.008
ppm Water	ppm	ASTM D6304 >1000	0	60	80

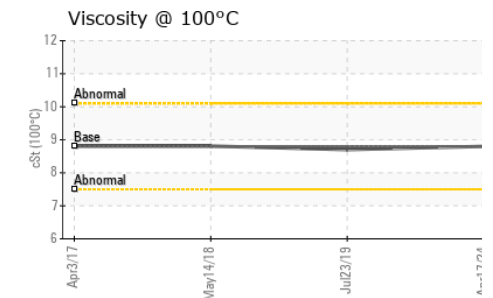
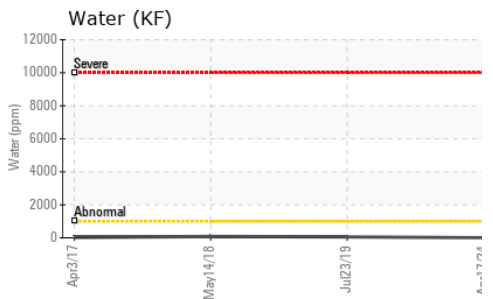
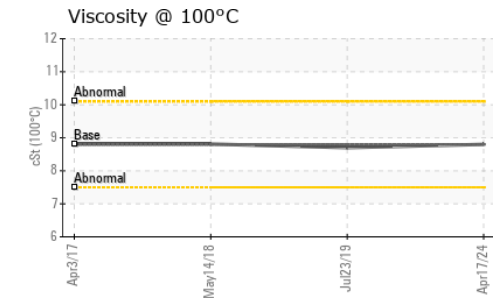
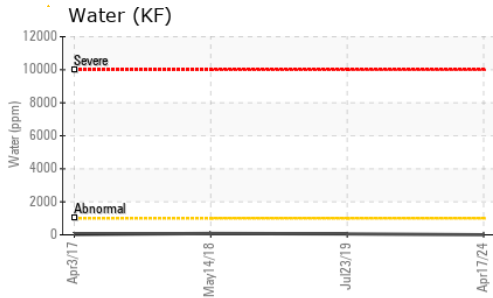
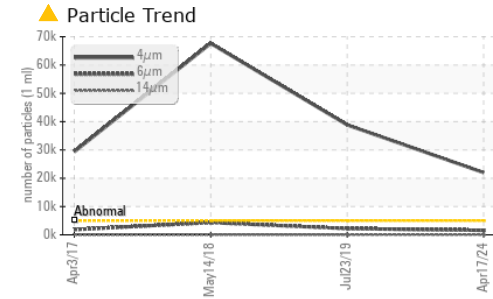
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	▲ 21987	▲ 38841	▲ 67645
Particles >6µm	ASTM D7647 >1300	● 1580	● 2196	▲ 4330
Particles >14µm	ASTM D7647 >160	36	37	59
Particles >21µm	ASTM D7647 >40	9	7	19
Particles >38µm	ASTM D7647 >10	1	0	5
Particles >71µm	ASTM D7647 >3	0	0	1
Oil Cleanliness	ISO 4406 (c) >19/17/14	▲ 22/18/12	▲ 22/18/12	▲ 23/19/13

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.7	0.36	0.325	0.355

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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	67.4	66.9	66.69
Visc @ 100°C	cSt	ASTM D445	8.8	8.7	8.81
Viscosity Index (VI)	Scale	ASTM D2270	102	103	104

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

Date	Iron (ppm)	Chromium (ppm)	Nickel (ppm)
Apr 3/17	~28	~0	~0
May 14/18	~28	~0	~0
Jul 23/19	~28	~0	~0
Apr 17/24	~28	~0	~0

Date	Number of particles (per 1 ml)	ISO Cleanliness Code
Apr 3/17	~30,720	22
May 14/18	~1,920	14
Jul 23/19	~30	8
Apr 17/24	~0	6

Date	Copper (ppm)	Lead (ppm)	Tin (ppm)
Apr 3/17	~15	~0	~0
May 14/18	~15	~0	~0
Jul 23/19	~15	~0	~0
Apr 17/24	~15	~0	~0

Date	cSt (40°C)
Apr 3/17	~67.4
May 14/18	~67.4
Jul 23/19	~67.4
Apr 17/24	~67.4

Date	Acid Number (mg KOH/g)
Apr 3/17	~0.35
May 14/18	~0.35
Jul 23/19	~0.35
Apr 17/24	~0.35



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50000788 **Received** : 22 Apr 2024
Lab Number : 06155895 **Tested** : 23 Apr 2024
Unique Number : 10991318 **Diagnosed** : 24 Apr 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, KV100, VI)

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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)