



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id **CATERPILLAR 775D 6441 (S/N 8AS00350)**

Component **Steering**

Fluid **TULCO LUBSOIL SUPER HYDRAULIC HZ 46 (21 GAL)**

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TO10002872	TO10002448	TO10002298
Sample Date		Client Info		13 Nov 2023	09 Aug 2023	26 May 2023
Machine Age	hrs	Client Info		42811	42272	41797
Oil Age	hrs	Client Info		4058	3519	3044
Filter Age	hrs	Client Info		539	475	495
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	3	3	2
Chromium	ppm	ASTM D5185m	>12	<1	<1	<1
Nickel	ppm	ASTM D5185m	>6	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>4	<1	0	0
Lead	ppm	ASTM D5185m	>12	0	0	0
Copper	ppm	ASTM D5185m	>30	2	<1	0
Tin	ppm	ASTM D5185m		0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

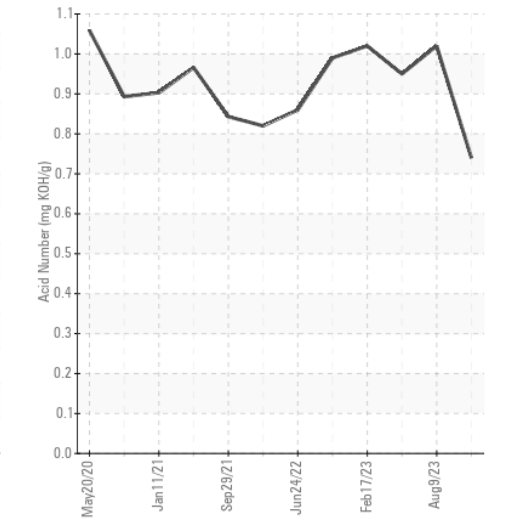
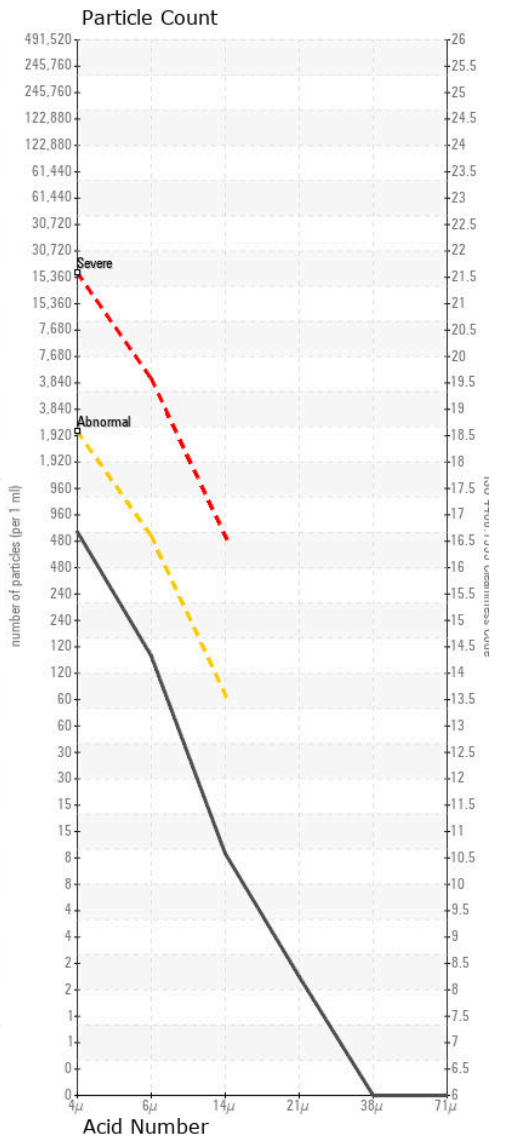
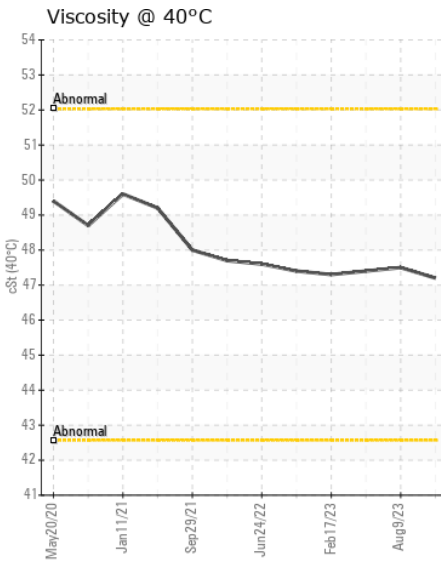
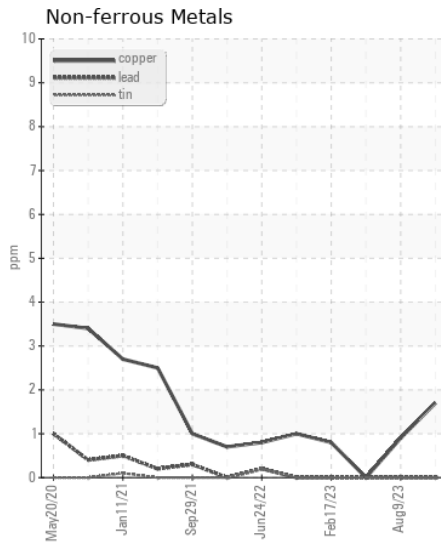
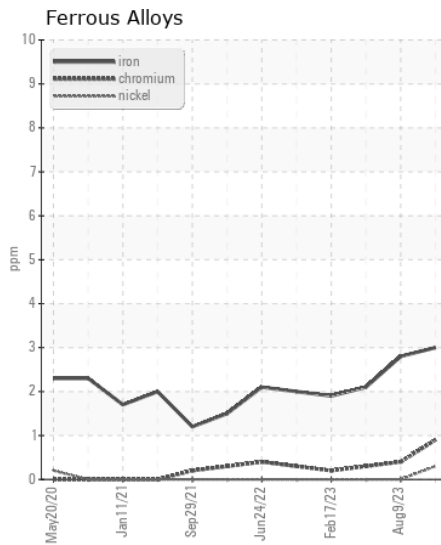
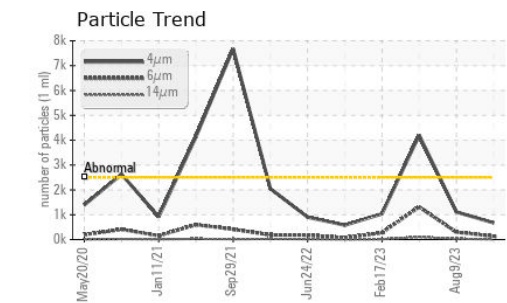
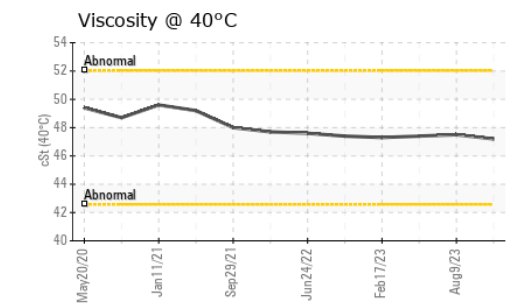
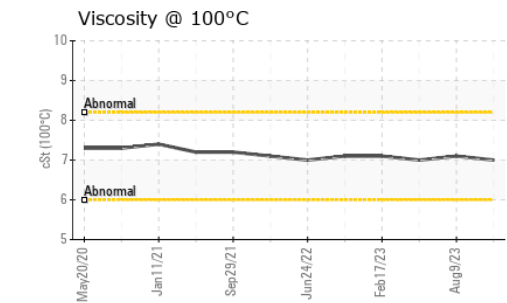
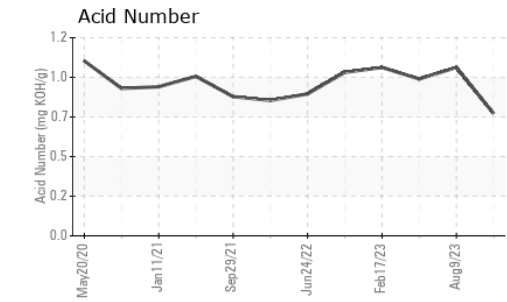
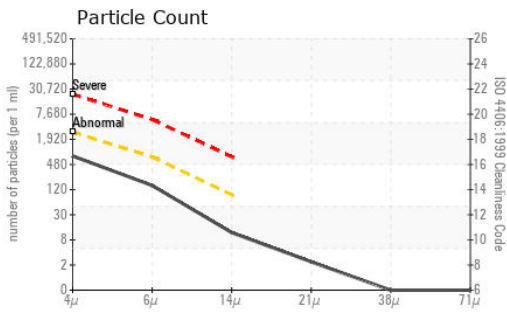
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>10	2	<1	<1
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Water		WC Method		NEG	NEG	NEG
Particles >4µm		ASTM D7647	>2500	674	1109	▲ 4202
Particles >6µm		ASTM D7647	>640	133	298	▲ 1317
Particles >14µm		ASTM D7647	>80	10	29	▲ 101
Particles >21µm		ASTM D7647	>20	2	8	▲ 21
Particles >38µm		ASTM D7647	>4	0	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	17/14/10	17/15/12	▲ 19/18/14
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual		NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

Sodium	ppm	ASTM D5185m		4	5	3
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	0	0
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		79	149	152
Calcium	ppm	ASTM D5185m		102	155	165
Phosphorus	ppm	ASTM D5185m		730	786	833
Zinc	ppm	ASTM D5185m		952	997	1103
Sulfur	ppm	ASTM D5185m		2587	3600	3891
Acid Number (AN)	mg KOH/g	ASTM D8045		0.74	1.02	0.95
Visc @ 40°C	cSt	ASTM D445		47.2	47.5	47.4
Visc @ 100°C	cSt	ASTM D445		7	7.1	7
Viscosity Index (VI)	Scale	ASTM D2270		104	107	104



Certificate L2367

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

Sample No. : TO10002872

Lab Number : 06011487

Unique Number : 10750631

Test Package : MOB 2 (Additional Tests: KV100, PrtCount, VI)

Received : 17 Nov 2023

Tested : 20 Nov 2023

Diagnosed : 21 Nov 2023 - Don Baldrige

ANCHOR STONE TULSA ROCK

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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)