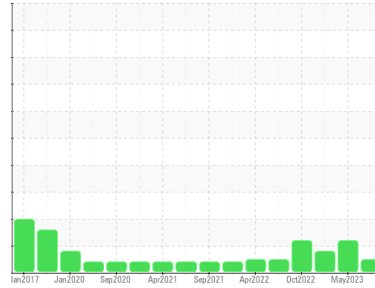


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
CATERPILLAR 775D HAUL TRUCK 6355 (S/N 6KR00297)
Component
Steering
Fluid
TULCO LUBSOIL SUPER HYDRAULIC HZ 46 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			TO10002759	TO10002228	TO10001768
Sample Date	Client Info			09 Oct 2023	19 May 2023	06 Feb 2023
Machine Age	hrs	Client Info		48474	47928	47465
Oil Age	hrs	Client Info		3514	2968	2505
Oil Changed	Client Info			Not Chngd	Not Chngd	Not Chngd
Sample Status				NORMAL	ATTENTION	ATTENTION

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>60	0	<1	2
Chromium	ppm	ASTM D5185m	>12	0	<1	0
Nickel	ppm	ASTM D5185m	>6	<1	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>4	0	<1	0
Lead	ppm	ASTM D5185m	>12	0	<1	0
Copper	ppm	ASTM D5185m	>30	5	4	5
Tin	ppm	ASTM D5185m		0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

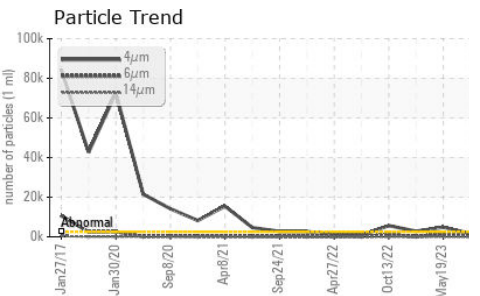
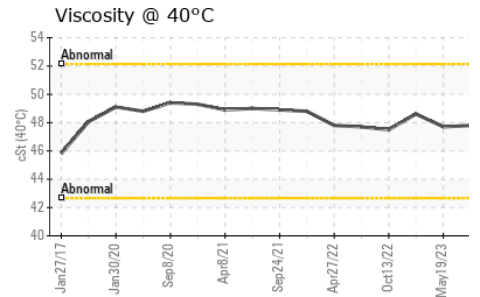
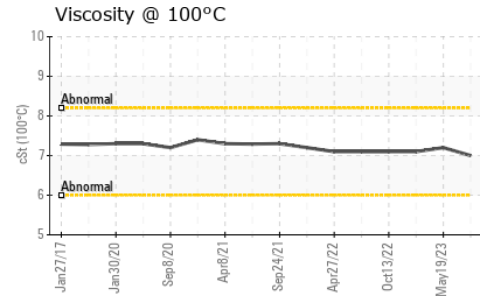
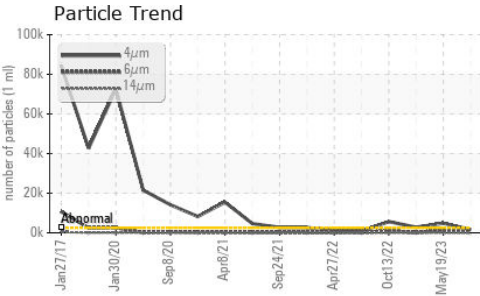
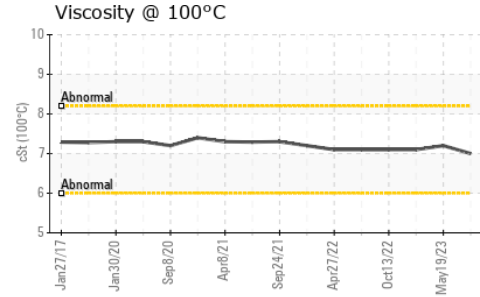
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	<1	<1
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m		97	104	90
Calcium	ppm	ASTM D5185m		129	126	129
Phosphorus	ppm	ASTM D5185m		748	768	825
Zinc	ppm	ASTM D5185m		1087	985	1055
Sulfur	ppm	ASTM D5185m		3181	3233	3293

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>10	<1	2	2
Sodium	ppm	ASTM D5185m		<1	2	0
Potassium	ppm	ASTM D5185m	>20	<1	<1	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	1607	● 4818	● 2823	
Particles >6µm	ASTM D7647	>640	354	● 1270	87	
Particles >14µm	ASTM D7647	>80	17	56	2	
Particles >21µm	ASTM D7647	>20	4	10	0	
Particles >38µm	ASTM D7647	>4	0	1	0	
Particles >71µm	ASTM D7647	>3	0	0	0	
Oil Cleanliness	ISO 4406 (c)	>18/16/13	18/16/11	● 19/17/13	● 19/14/9	

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		1.257	0.99	0.90

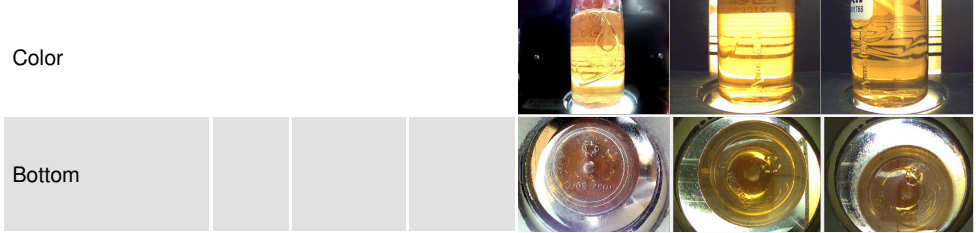
OIL ANALYSIS REPORT



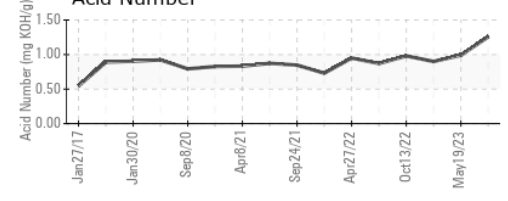
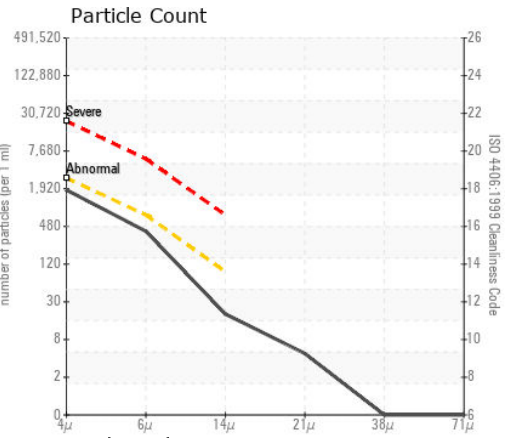
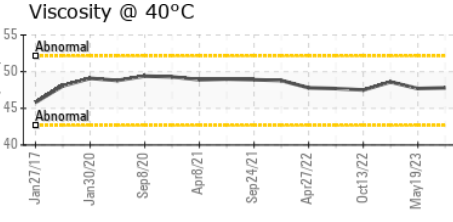
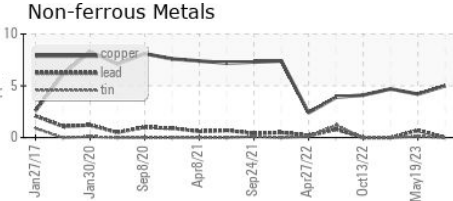
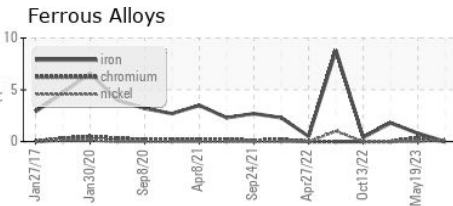
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	47.8	47.7	48.6
Visc @ 100°C	cSt	ASTM D445	7	7.2	7.1
Viscosity Index (VI)	Scale	ASTM D2270	102	110	103

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO10002759 **Received** : 16 Oct 2023
Lab Number : 05980361 **Tested** : 17 Oct 2023
Unique Number : 10697656 **Diagnosed** : 17 Oct 2023 - Wes Davis
Test Package : MOB 2 (Additional Tests: KV100, PrtCount, 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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