



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ATTENTION</b>
FLUID CONDITION	<b>NORMAL</b>



Area

## DE Samples - CAT LAB

Machine Id

### CATERPILLAR 775D HAUL TRUCK 6355 (S/N 6KR00297)

Component

#### Steering

Fluid

#### TULCO LUBSOIL SUPER HYDRAULIC HZ 46 (--- GAL)

### RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TO10003104</b>	TO10003126	TO10002759
Sample Date		Client Info		<b>24 May 2024</b>	24 Feb 2024	09 Oct 2023
Machine Age	hrs	Client Info		<b>49573</b>	49032	48474
Oil Age	hrs	Client Info		<b>4640</b>	4099	3514
Filter Age	hrs	Client Info		<b>541</b>	0	546
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	ABNORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	<b>0</b>	0	0
Chromium	ppm	ASTM D5185m	>12	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>6	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185m	>12	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>30	<b>6</b>	6	5
Tin	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

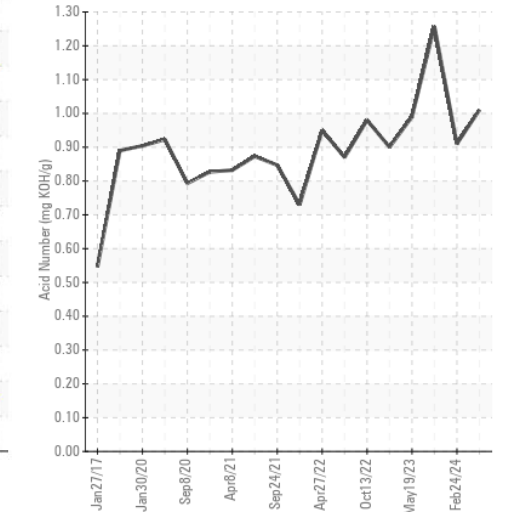
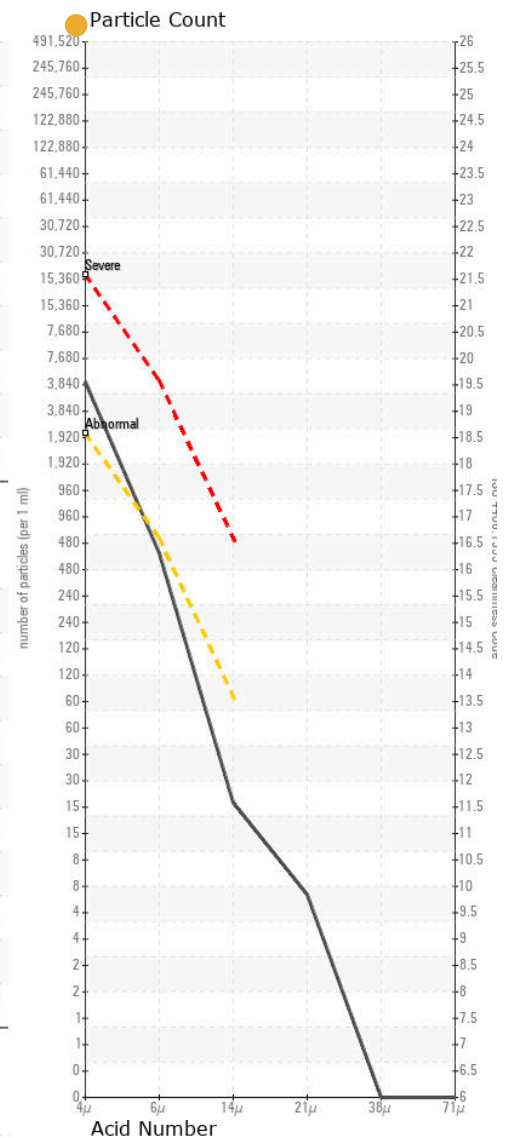
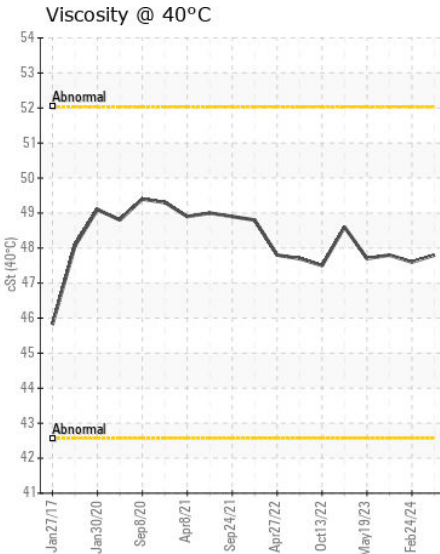
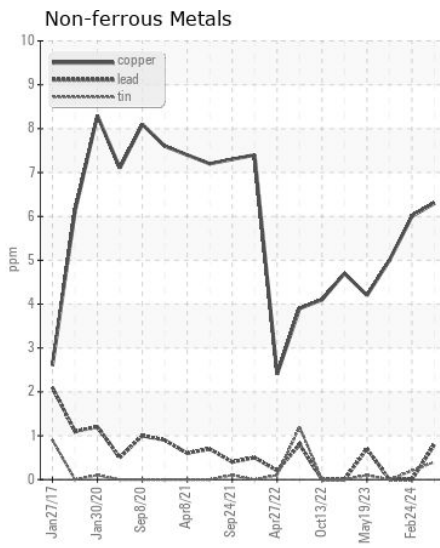
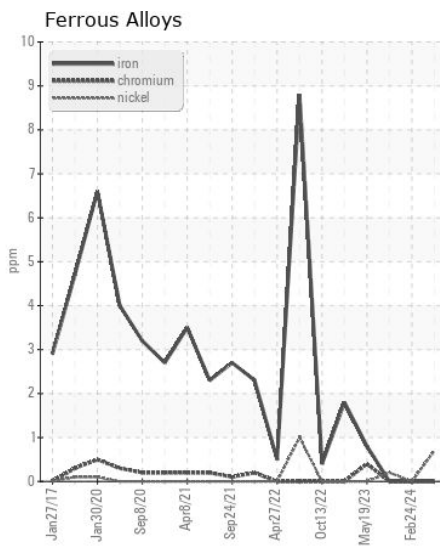
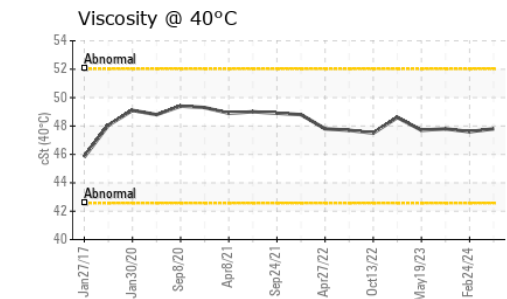
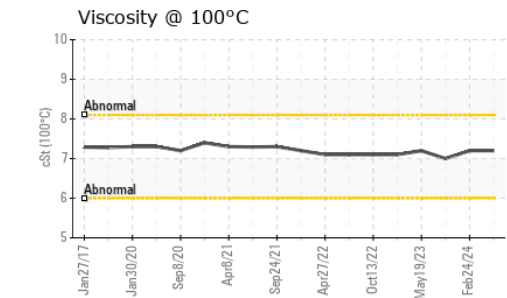
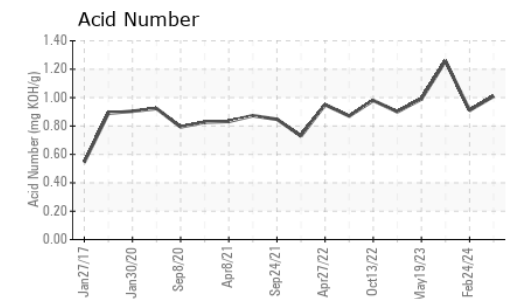
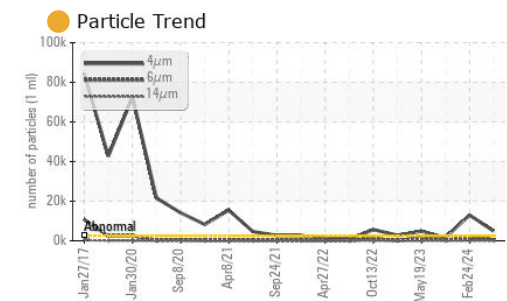
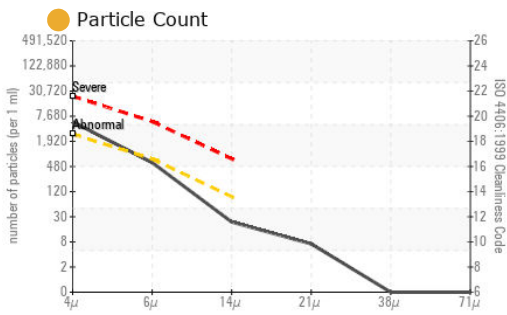
There is a light amount of silt (particulates < 14 microns in size) present in the fluid.

Silicon	ppm	ASTM D5185m	>10	<b>1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	<1	<1
Water		WC Method		<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>2500	<b>4939</b>	12990	1607
Particles >6µm		ASTM D7647	>640	<b>523</b>	1262	354
Particles >14µm		ASTM D7647	>80	<b>20</b>	55	17
Particles >21µm		ASTM D7647	>20	<b>6</b>	16	4
Particles >38µm		ASTM D7647	>4	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	<b>19/16/11</b>	21/17/13	18/16/11
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual		<b>NEG</b>	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		<b>2</b>	2	<1
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>105</b>	99	97
Calcium	ppm	ASTM D5185m		<b>123</b>	124	129
Phosphorus	ppm	ASTM D5185m		<b>794</b>	797	748
Zinc	ppm	ASTM D5185m		<b>1017</b>	995	1087
Sulfur	ppm	ASTM D5185m		<b>3508</b>	2844	3181
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.01</b>	0.91	1.257
Visc @ 40°C	cSt	ASTM D445		<b>47.8</b>	47.6	47.8
Visc @ 100°C	cSt	ASTM D445		<b>7.2</b>	7.2	7
Viscosity Index (VI)	Scale	ASTM D2270		<b>109</b>	110	102



Certificate L2367

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

Sample No. : TO10003104

Lab Number : 06192781

Unique Number : 11049533

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

Received : 28 May 2024

Tested : 30 May 2024

Diagnosed : 30 May 2024 - Wes Davis

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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