



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id  
**CATERPILLAR 730 WATER TRK 6019 (S/N B1M03182)**  
Component  
**Hydraulic System**  
Fluid  
**TULCO LUBSOIL SUPER HYDRAULIC HZ 46 (40 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>TO10003051</b>	TO10002334	TO10000555
Sample Date		Client Info		<b>08 Jan 2024</b>	26 Jun 2023	26 Aug 2021
Machine Age	hrs	Client Info		<b>11612</b>	11087	9924
Oil Age	hrs	Client Info		<b>1688</b>	1163	1020
Filter Age	hrs	Client Info		<b>525</b>	675	520
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	2
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	1	0
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>75	<b>3</b>	<1	4
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
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**

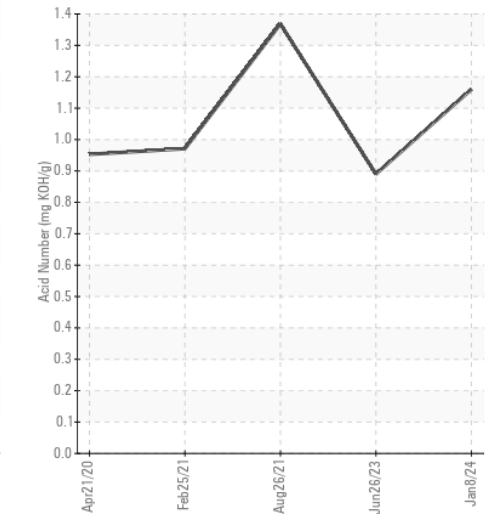
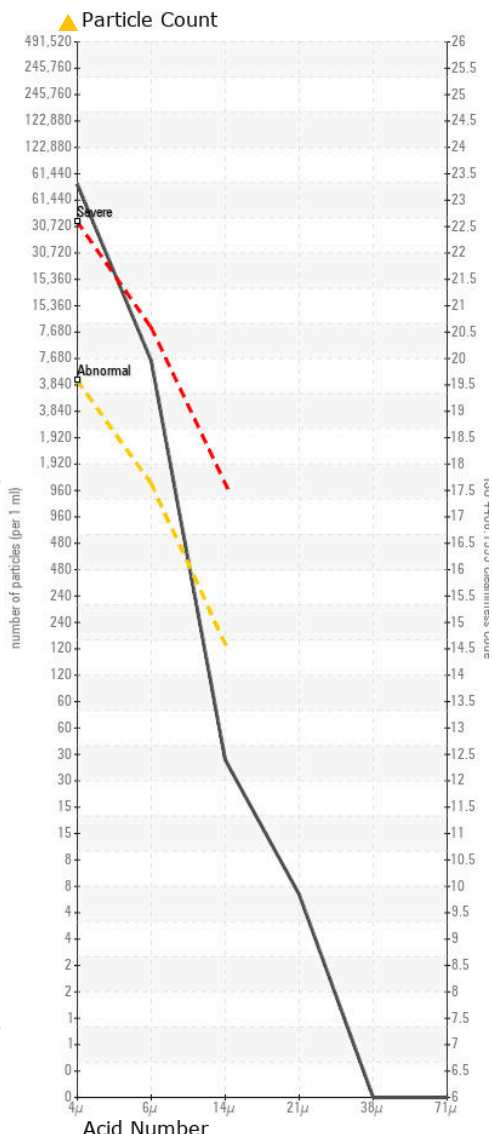
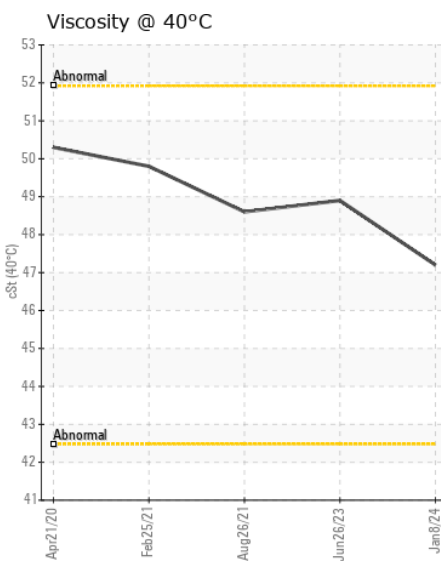
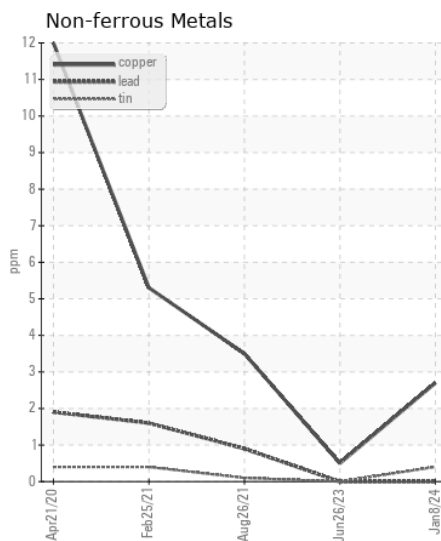
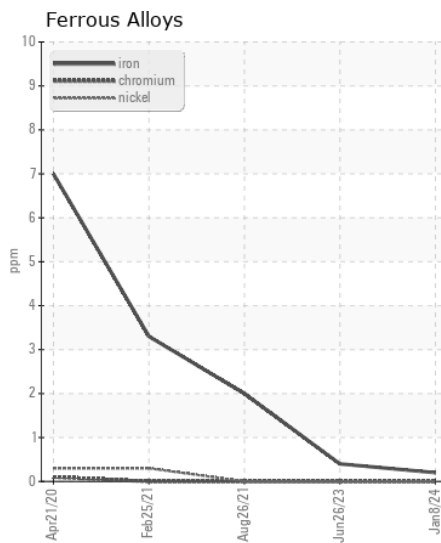
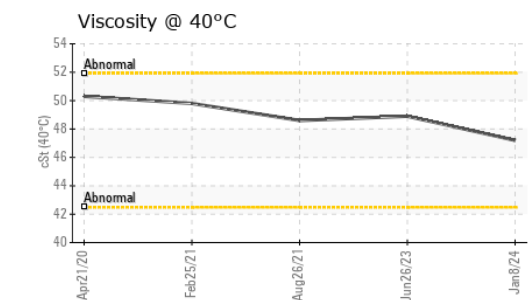
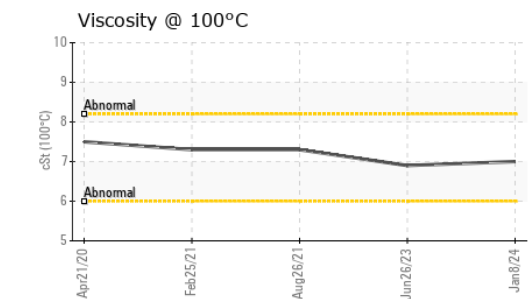
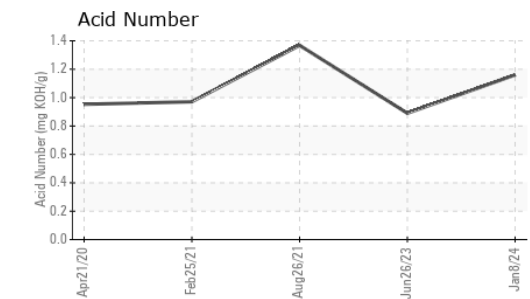
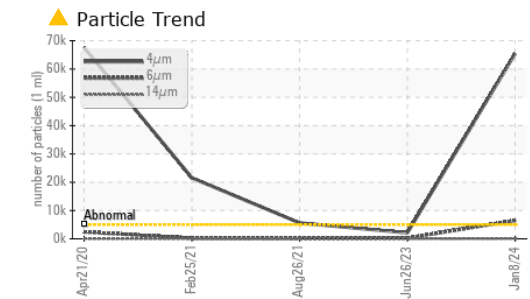
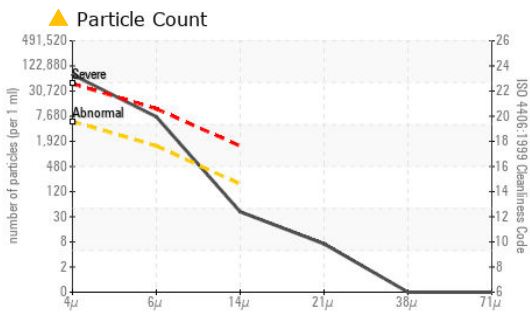
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Water	%	ASTM D6304	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>▲ 65396</b>	2106	▲ 5624
Particles >6µm		ASTM D7647	>1300	<b>▲ 6477</b>	277	122
Particles >14µm		ASTM D7647	>160	<b>35</b>	15	4
Particles >21µm		ASTM D7647	>40	<b>6</b>	4	1
Particles >38µm		ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 23/20/12</b>	18/15/11	▲ 20/14/9
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	>0.1	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

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

Sodium	ppm	ASTM D5185m		<b>3</b>	3	2
Boron	ppm	ASTM D5185m		<b>0</b>	0	1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>199</b>	202	219
Calcium	ppm	ASTM D5185m		<b>174</b>	172	193
Phosphorus	ppm	ASTM D5185m		<b>737</b>	723	735
Zinc	ppm	ASTM D5185m		<b>919</b>	918	923
Sulfur	ppm	ASTM D5185m		<b>2786</b>	3346	2493
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.16</b>	0.89	1.368
Visc @ 40°C	cSt	ASTM D445		<b>47.2</b>	48.9	48.6
Visc @ 100°C	cSt	ASTM D445		<b>7</b>	6.9	7.3
Viscosity Index (VI)	Scale	ASTM D2270		<b>104</b>	95	110



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO10003051 **Received** : 16 Jan 2024  
**Lab Number** : 06061042 **Diagnosed** : 17 Jan 2024  
**Unique Number** : 10832424 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 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)

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