



# OIL ANALYSIS REPORT



Area  
**PCS - PORTABLE CRUSHING SERVICES**  
Machine Id  
**KOMATSU PC290LC TH01 - PCS**  
Component  
**Hydraulic System**  
Fluid  
**STP HYDRO ISO AW 46 (66 GAL)**

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

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KL0014099</b>	KL0013078	KL0009677
Sample Date		Client Info		<b>09 Jan 2024</b>	03 Oct 2023	29 Jun 2023
Machine Age	hrs	Client Info		<b>12462</b>	12320	12092
Oil Age	hrs	Client Info		<b>5112</b>	4970	4742
Filter Age	hrs	Client Info		<b>5112</b>	4970	4742
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>ABNORMAL</b>	SEVERE	ABNORMAL

## WEAR

The iron level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	<b>▲ 34</b>	4	1
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>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>▲ 6</b>	<1	<1
Lead	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>75	<b>14</b>	9	5
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

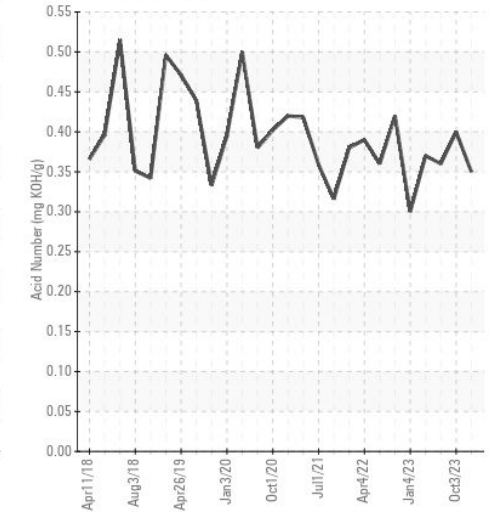
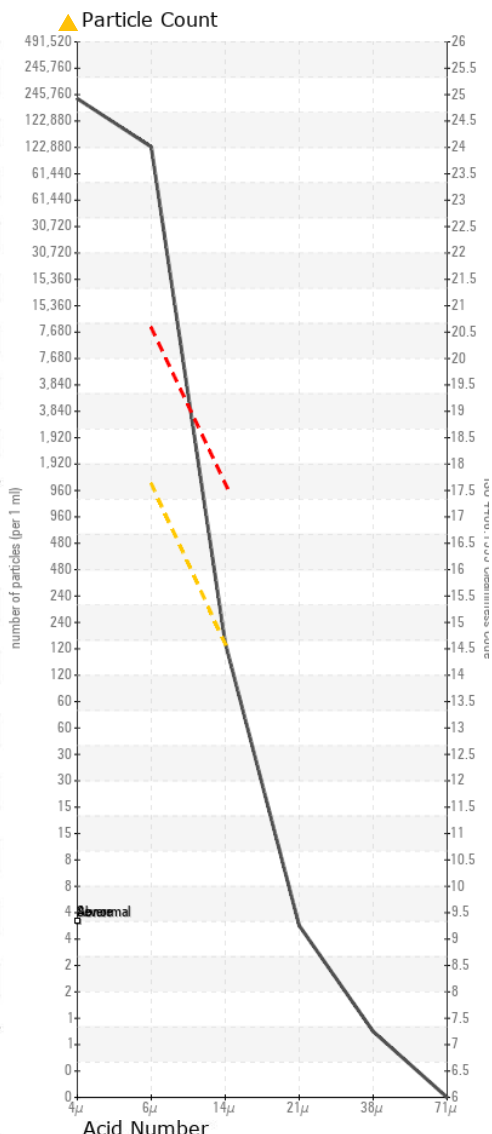
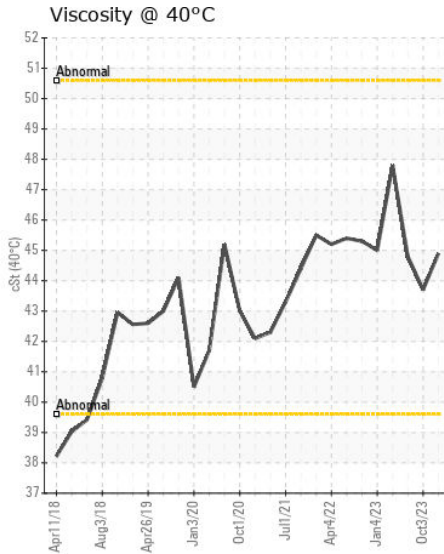
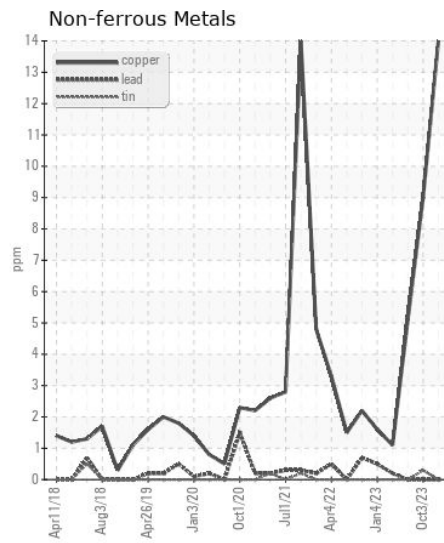
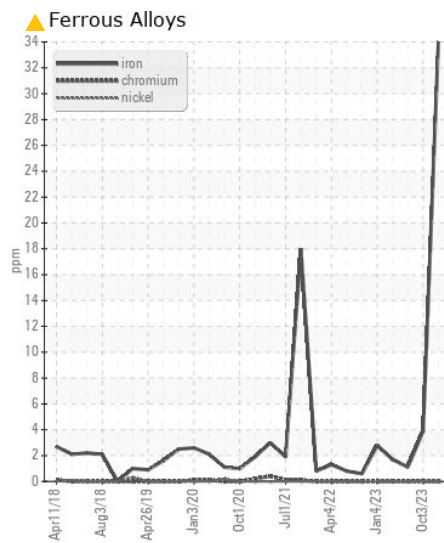
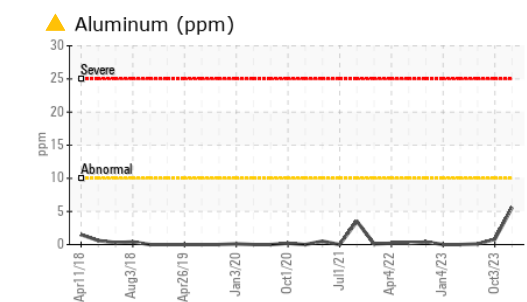
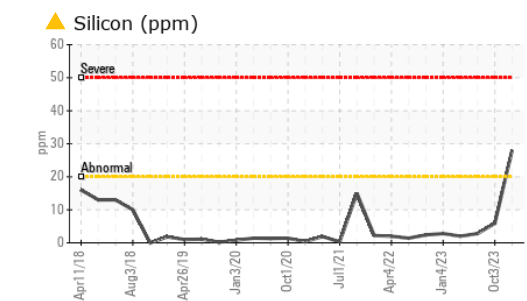
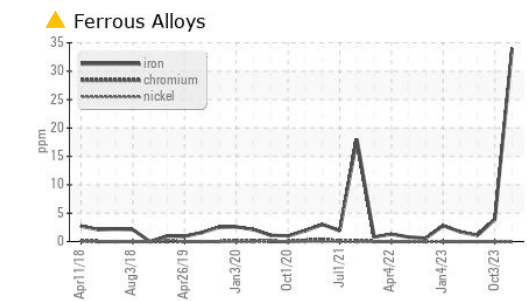
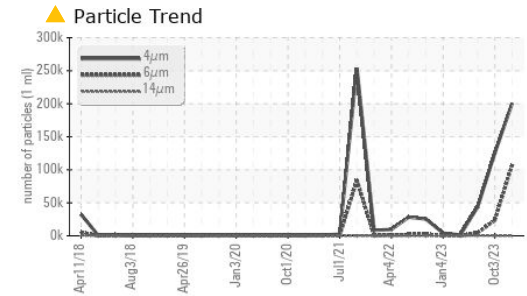
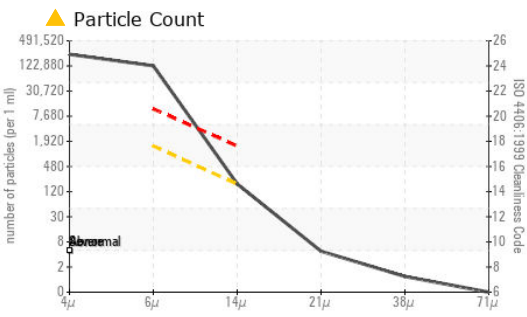
There is a high amount of particulates present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>20	<b>▲ 28</b>	6	3
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647		<b>200528</b>	125360	43543
Particles >6µm		ASTM D7647	>1300	<b>▲ 106645</b>	23645	4453
Particles >14µm		ASTM D7647	>160	<b>▲ 162</b>	49	378
Particles >21µm		ASTM D7647	>40	<b>4</b>	11	69
Particles >38µm		ASTM D7647	>10	<b>1</b>	1	2
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>17/14	<b>▲ 24/15</b>	22/13	19/16
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>2</b>	0	<1
Boron	ppm	ASTM D5185m		<b>3</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>11</b>	1	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>0</b>	2	2
Calcium	ppm	ASTM D5185m		<b>124</b>	42	28
Phosphorus	ppm	ASTM D5185m		<b>298</b>	283	301
Zinc	ppm	ASTM D5185m		<b>338</b>	313	333
Sulfur	ppm	ASTM D5185m		<b>1335</b>	1271	1532
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.35</b>	0.40	0.36
Visc @ 40°C	cSt	ASTM D445		<b>44.9</b>	43.7	44.8



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0014099 **Received** : 16 Jan 2024  
**Lab Number** : 06060991 **Diagnosed** : 17 Jan 2024  
**Unique Number** : 10832373 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 2

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Certificate L2367  
 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)