



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

Area

[05W47779]

Machine Id

KLEEMAN MC110i EVO2 K1170114

Component

Hydraulic System

Fluid

WIRTGEN GROUP HYDRAULIC OIL HVLP 46 (40 GAL)

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0225695	JR0211150	JR0169748
Sample Date		Client Info		02 Jul 2024	04 Apr 2024	30 Jun 2023
Machine Age	hrs	Client Info		1975	1436	990
Oil Age	hrs	Client Info		1020	927	500
Filter Age	hrs	Client Info		539	446	500
Oil Changed		Client Info		Not Chngd	Not Chngd	Not Chngd
Filter Changed		Client Info		Changed	Not Chngd	Changed
Sample Status				NORMAL	NORMAL	SEVERE

### WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	<1	2	<1
Chromium	ppm	ASTM D5185m	>10	0	<1	0
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	0	2	<1
Lead	ppm	ASTM D5185m	>10	0	<1	0
Copper	ppm	ASTM D5185m	>75	<1	2	1
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

### CONTAMINATION

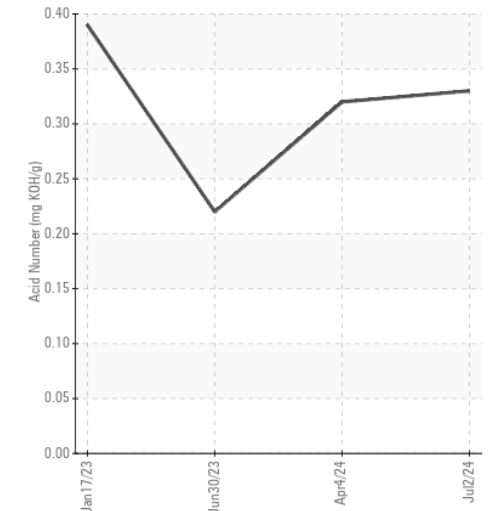
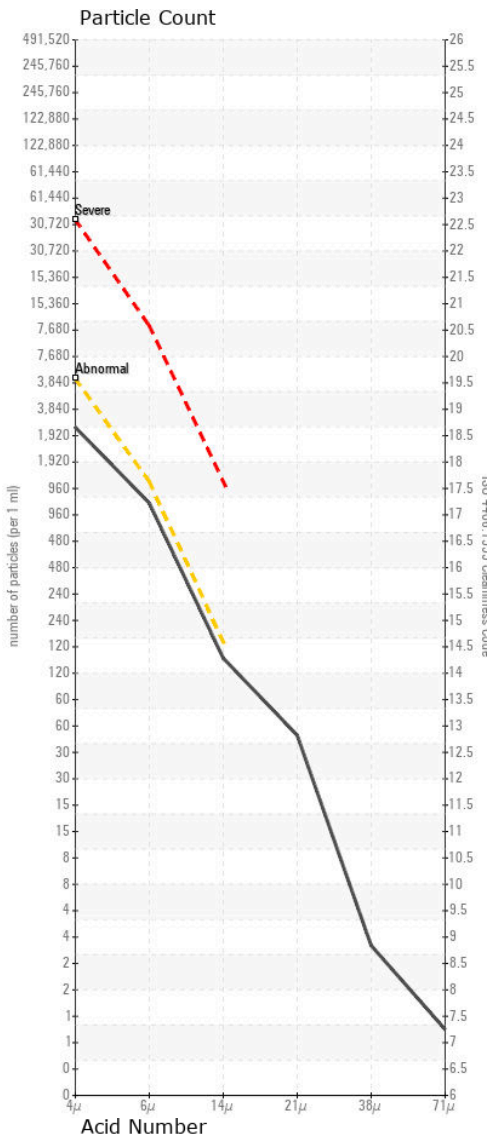
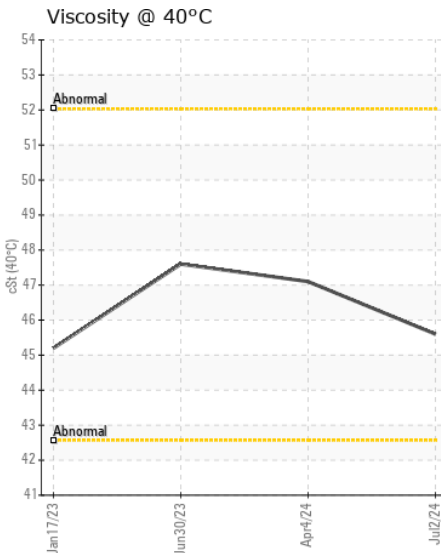
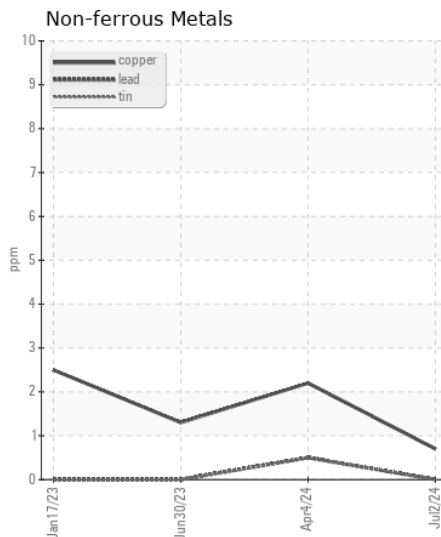
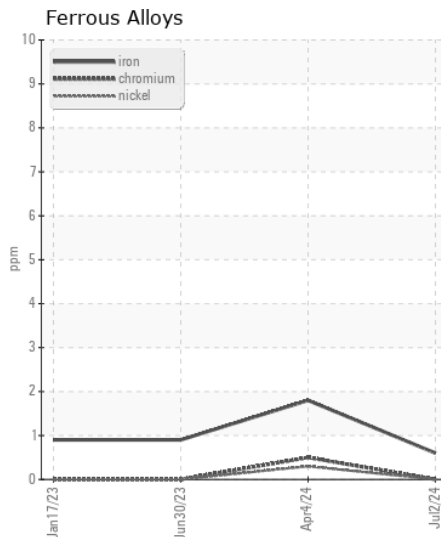
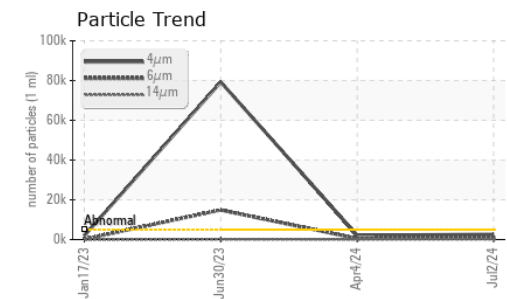
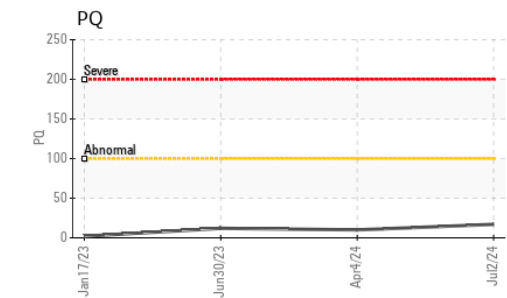
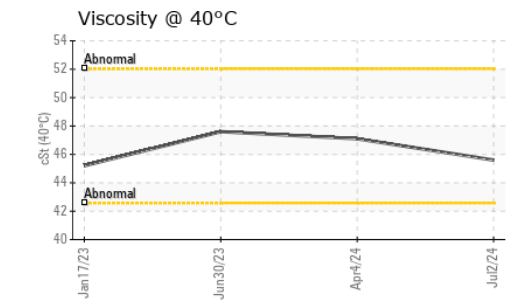
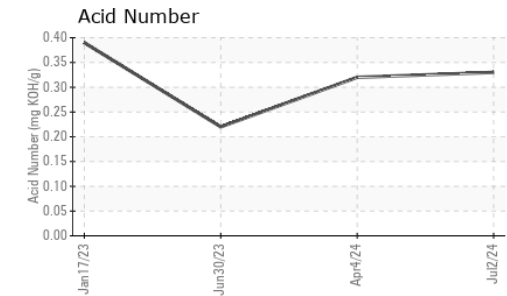
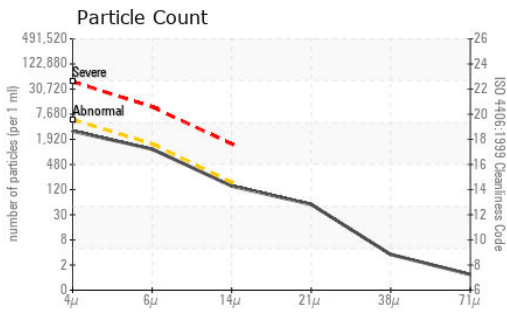
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	2	3	3
Potassium	ppm	ASTM D5185m	>20	<1	1	2
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	2642	2147	▲ 79225
Particles >6µm		ASTM D7647	>1300	982	533	▲ 14884
Particles >14µm		ASTM D7647	>160	129	58	94
Particles >21µm		ASTM D7647	>40	47	15	19
Particles >38µm		ASTM D7647	>10	3	1	1
Particles >71µm		ASTM D7647	>3	1	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	19/17/14	18/16/13	▲ 23/21/14
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	>0.1	NEG	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		<1	0	<1
Boron	ppm	ASTM D5185m		4	6	6
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		<1	<1	0
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m		4	3	4
Calcium	ppm	ASTM D5185m		239	225	258
Phosphorus	ppm	ASTM D5185m		446	395	528
Zinc	ppm	ASTM D5185m		259	197	216
Sulfur	ppm	ASTM D5185m		850	501	666
Acid Number (AN)	mg KOH/g	ASTM D8045		0.33	0.32	0.22
Visc @ 40°C	cSt	ASTM D445		45.6	47.1	47.6



Certificate L2367

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

Sample No. : JR0225695

Lab Number : 06227307

Unique Number : 11110800

Test Package : CONST ( Additional Tests: PQ )

Received : 03 Jul 2024

Tested : 05 Jul 2024

Diagnosed : 05 Jul 2024 - Don Baldrige

JRE - MANASSAS PARK

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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)