



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
KAESER DS141
Component
Hydraulic System
Fluid
KAESER SIGMA (OEM) S-460 (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

WEAR

All component wear rates are normal.

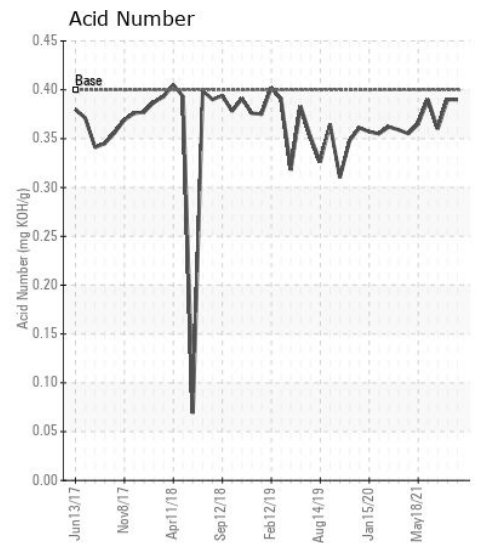
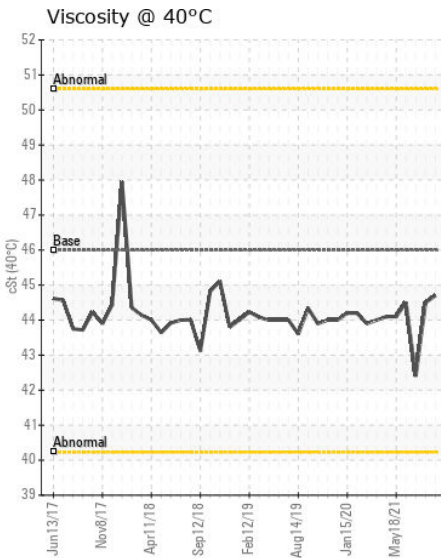
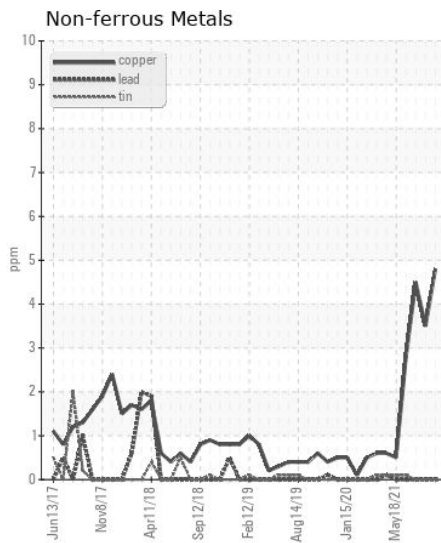
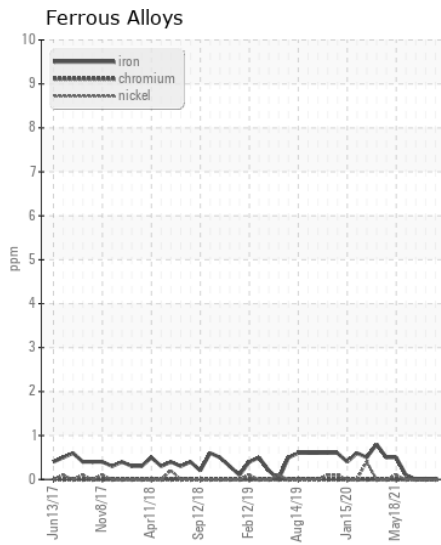
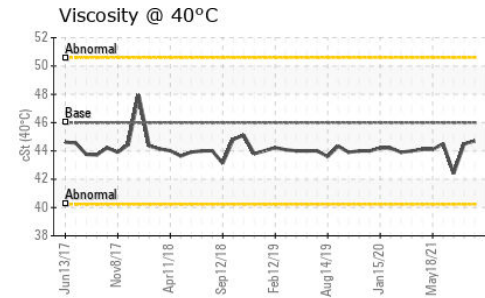
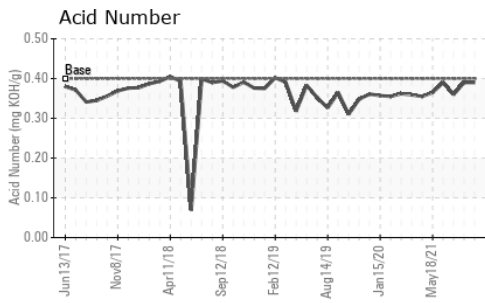
CONTAMINATION

Moderate concentration of visible dirt/debris present in the oil.

FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PTK0000291	PTK0000348	PTK0001314
Sample Date		Client Info		09 Nov 2023	13 Jun 2023	23 Nov 2022
Machine Age	mths	Client Info		0	0	0
Oil Age	mths	Client Info		0	0	0
Filter Age	mths	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>20	0	0	0
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>20	0	0	0
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>20	5	4	4
Tin	ppm	ASTM D5185m	>20	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>15	0	0	<1
Potassium	ppm	ASTM D5185m	>20	<1	2	0
Water		WC Method	>0.05	NEG	NEG	NEG
Particles >4µm		ASTM D7647		---	39864	24408
Particles >6µm		ASTM D7647	>2500	---	▲ 18442	▲ 8675
Particles >14µm		ASTM D7647	>320	---	▲ 3119	▲ 793
Particles >21µm		ASTM D7647	>80	---	▲ 1011	▲ 136
Particles >38µm		ASTM D7647	>20	---	● 33	5
Particles >71µm		ASTM D7647	>4	---	1	0
Oil Cleanliness		ISO 4406 (c)	>18/15	---	▲ 21/19	▲ 20/17
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	NONE	VLITE
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	>0.05	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		2	2	3
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m	90	0	3	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m	90	3	23	5
Calcium	ppm	ASTM D5185m	2	0	2	0
Phosphorus	ppm	ASTM D5185m		<1	2	19
Zinc	ppm	ASTM D5185m		13	15	4
Sulfur	ppm	ASTM D5185m		17390	20064	14966
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.39	0.39	0.36
Visc @ 40°C	cSt	ASTM D445	46	44.7	44.5	42.4



Certificate L2367

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

Sample No. : PTK0000291

Lab Number : 06017311

Unique Number : 10756455

Test Package : MOB 2

Received : 24 Nov 2023

Tested : 29 Nov 2023

Diagnosed : 29 Nov 2023 - Jonathan Hester

GRAPHIC PACKAGING

1500 NICHOLAS BLVD

ELK GROVE, IL

US 60017

Contact: TONY HILDY

anthonyhildy@graphicpkg.com

T: (847)437-1700

F:

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)