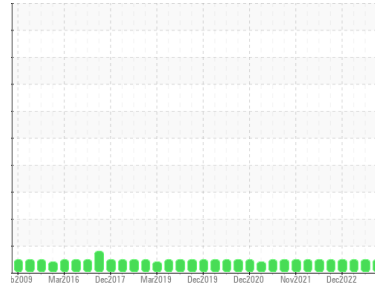




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
Kerr
 Machine Id
KER01 Governor (S/N 8058)
 Component
Tank Hydraulic System
 Fluid
CONOCO HYDRAULIC AW ISO 46 (1166 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

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

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0483412	WC0483319	WC0483312
Sample Date	Client Info	22 Aug 2023	10 May 2023	06 Feb 2023
Machine Age	yrs Client Info	0	0	0
Oil Age	yrs Client Info	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >20	27	28	31
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	0
Aluminum	ppm ASTM D5185m >20	0	<1	0
Lead	ppm ASTM D5185m >20	0	0	1
Copper	ppm ASTM D5185m >20	<1	<1	<1
Tin	ppm ASTM D5185m >20	0	0	0
Vanadium	ppm ASTM D5185m	<1	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	0	0	0
Barium	ppm ASTM D5185m	0	0	0
Molybdenum	ppm ASTM D5185m	0	0	0
Manganese	ppm ASTM D5185m	0	0	0
Magnesium	ppm ASTM D5185m	0	0	<1
Calcium	ppm ASTM D5185m	4	4	5
Phosphorus	ppm ASTM D5185m	17	19	19
Zinc	ppm ASTM D5185m 3100	0	0	2
Sulfur	ppm ASTM D5185m	1928	1781	2068

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >15	0	<1	<1
Sodium	ppm ASTM D5185m	2	2	0
Potassium	ppm ASTM D5185m >20	0	<1	1

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >2500	159	118	87
Particles >6µm	ASTM D7647 >640	51	35	31
Particles >14µm	ASTM D7647 >80	11	6	5
Particles >21µm	ASTM D7647 >20	4	2	1
Particles >38µm	ASTM D7647 >4	0	0	0
Particles >71µm	ASTM D7647 >3	0	0	0
Oil Cleanliness	ISO 4406 (c) >18/16/13	14/13/11	14/12/10	14/12/10

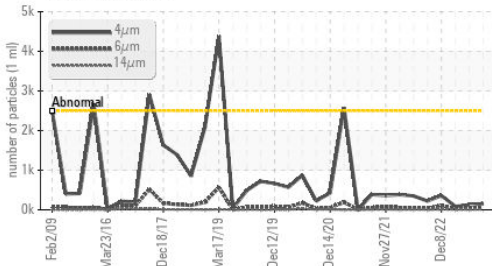
FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045 0.4	0.30	0.32	0.30

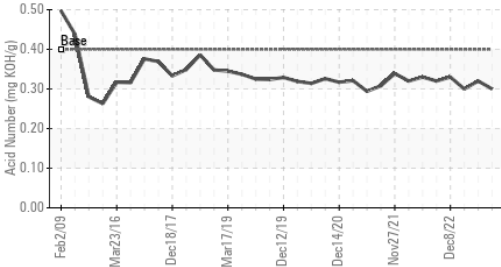


OIL ANALYSIS REPORT

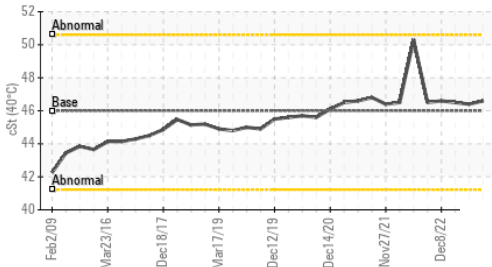
Particle Trend



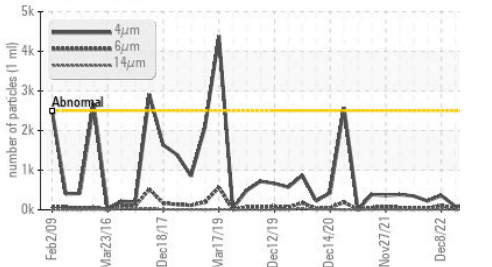
Acid Number



Viscosity @ 40°C



Particle Trend

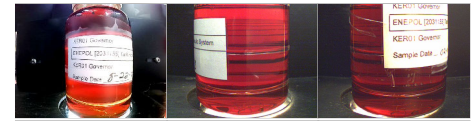


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	46.6	46.4	46.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

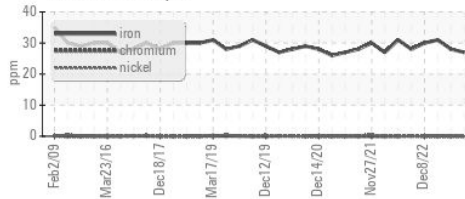


Bottom

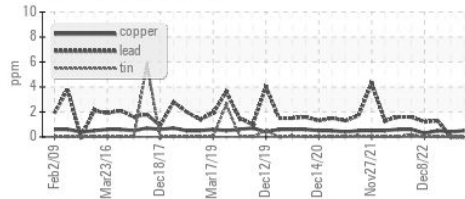


GRAPHS

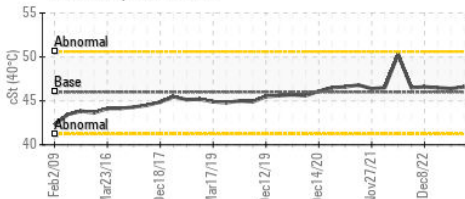
Ferrous Alloys



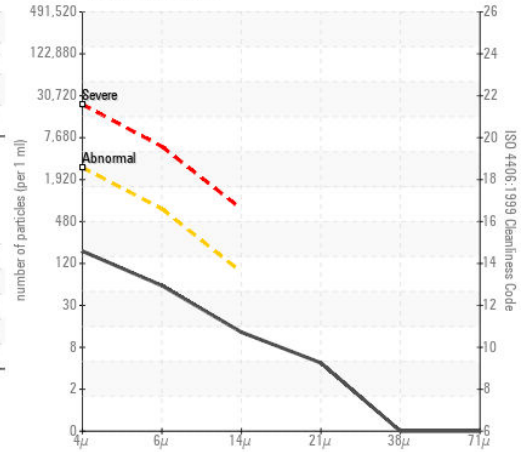
Non-ferrous Metals



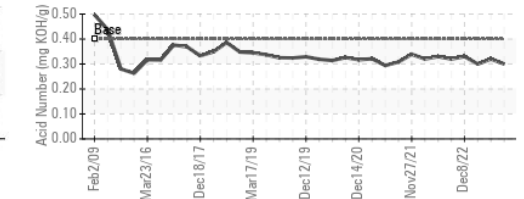
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0483412 **Received** : 25 Aug 2023
Lab Number : 05935351 **Diagnosed** : 28 Aug 2023
Unique Number : 10620622 **Diagnostician** : Don Baldrige
Test Package : IND 2

ENERGY KEEPERS INC
 110 MAIN ST, SUITE 304
 POLSON, MT
 US 59860
 Contact: GARY PETERSON
 gary.peterson@energykeepersinc.com
 T: (406)872-0229
 F: (406)883-1183

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)