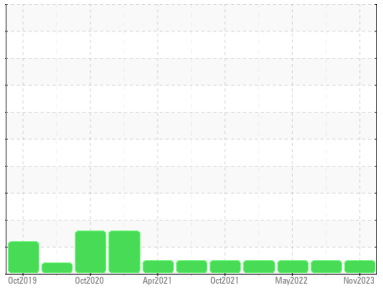
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
ROLL STRAIGHTENER
Component
Hydraulic System
Fluid
TEXACO RANDO OIL HD 68 (--- 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		**WC0782208**	WC0690916	WC0629262
Sample Date		Client Info		**03 Nov 2023**	08 Sep 2022	03 May 2022
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	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	**0**	2	1
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**	<1	0
Aluminum	ppm	ASTM D5185m	>20	**0**	<1	0
Lead	ppm	ASTM D5185m	>20	**<1**	2	1
Copper	ppm	ASTM D5185m	>20	**1**	2	2
Tin	ppm	ASTM D5185m	>20	**0**	<1	0
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0.2	**<1**	<1	<1
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**1**	<1	<1
Manganese	ppm	ASTM D5185m		**0**	0	0
Magnesium	ppm	ASTM D5185m	0	**30**	64	67
Calcium	ppm	ASTM D5185m	49	**76**	75	76
Phosphorus	ppm	ASTM D5185m	247	**371**	341	394
Zinc	ppm	ASTM D5185m	323	**462**	504	516
Sulfur	ppm	ASTM D5185m	4717	**944**	1140	960

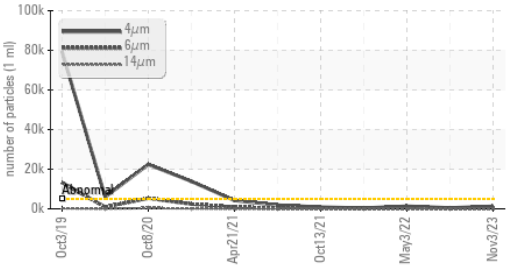
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**0**	<1	<1
Sodium	ppm	ASTM D5185m		**2**	0	0
Potassium	ppm	ASTM D5185m	>20	**0**	1	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0**	0.1	0.1
Nitration	Abs/cm	*ASTM D7624		**1.7**	2.4	2.1
Sulfation	Abs/.1mm	*ASTM D7415		**10.8**	11.2	10.3

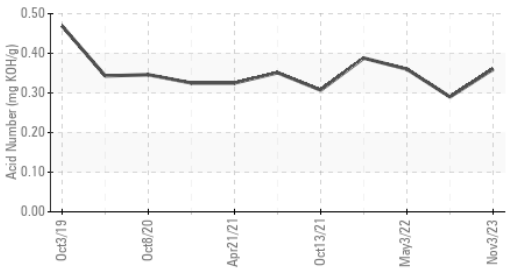
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**1273**	479	1327
Particles >6µm		ASTM D7647	>1300	**338**	80	213
Particles >14µm		ASTM D7647	>160	**18**	5	14
Particles >21µm		ASTM D7647	>40	**3**	1	3
Particles >38µm		ASTM D7647	>10	**0**	0	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**17/16/11**	16/13/10	18/15/11

OIL ANALYSIS REPORT

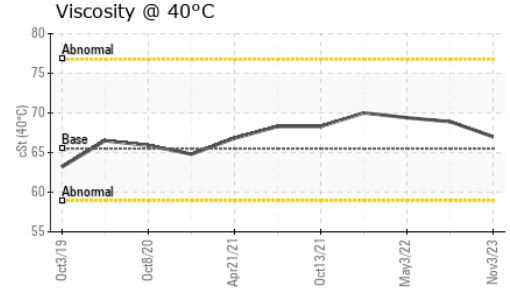
Particle Trend



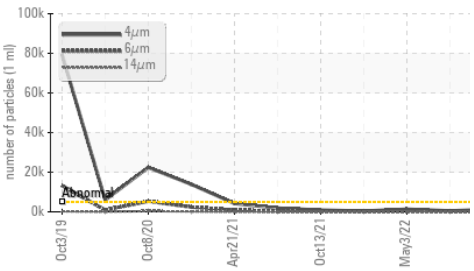
Acid Number



Viscosity @ 40°C



Particle Trend

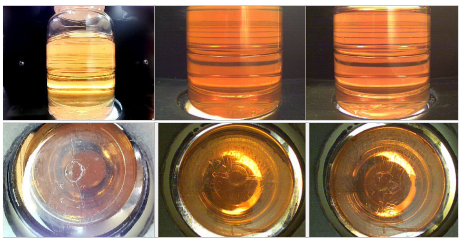


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414		**2.1**	2.1	1.8
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.36**	0.29	0.36

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
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	>0.05	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

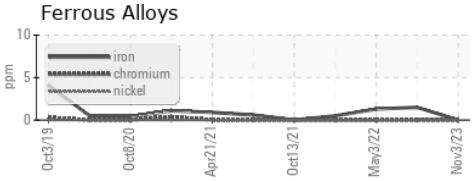
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	65.5	**67.0**	68.9	69.4

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

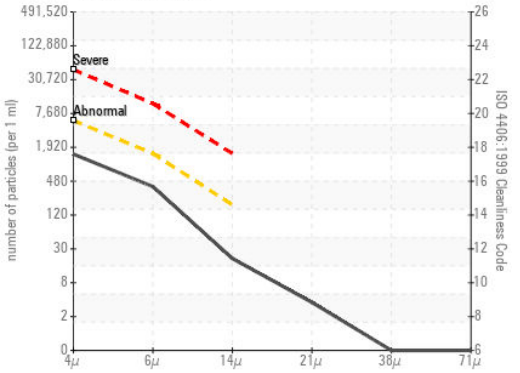


GRAPHS

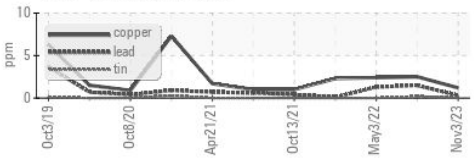
Ferrous Alloys



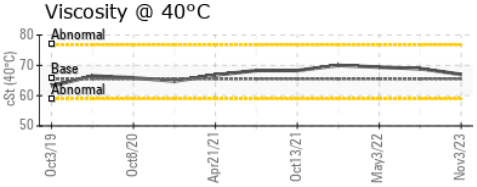
Particle Count



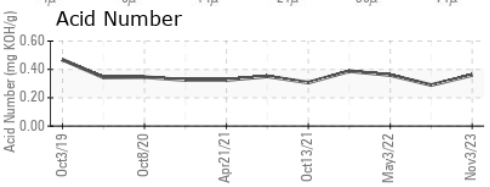
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0782208 **Received** : 07 Nov 2023
Lab Number : 06001025 **Diagnosed** : 09 Nov 2023
Unique Number : 10729385 **Diagnostician** : Don Baldridge
Test Package : IND 2 (Additional Tests: FT-IR)

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)

KAISER ALUMINUM
1901 REYMET RD
NORTH CHESTERFIELD, VA
US 23237
Contact: Yong Quan
Yong.Quan@kaiseraluminum.com
T: (804)743-6485
F:

Report Id: KAIRICVA [WUSCAR] 06001025 (Generated: 11/13/2023 04:49:43) Rev: 1

Submitted By: Yong Quan