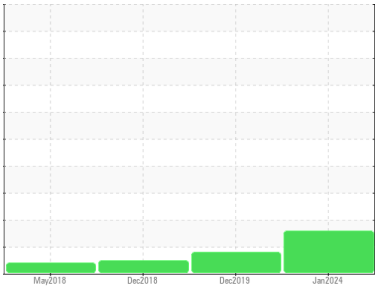
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
NISSEI A-11 - S23617029K1
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 46 (248 GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

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

Contamination
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

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		**WC0819580**	WC0385781	WCI2336031
Sample Date		Client Info		**17 Jan 2024**	06 Dec 2019	05 Dec 2018
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				**ABNORMAL**	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.05	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**2**	2	1
Chromium	ppm	ASTM D5185m	>20	**0**	0	0
Nickel	ppm	ASTM D5185m	>20	**0**	<1	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**	<1	<1
Copper	ppm	ASTM D5185m	>20	▲ **54**	▲ 37	19
Tin	ppm	ASTM D5185m	>20	**<1**	0	<1
Antimony	ppm	ASTM D5185m		**---**	<1	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

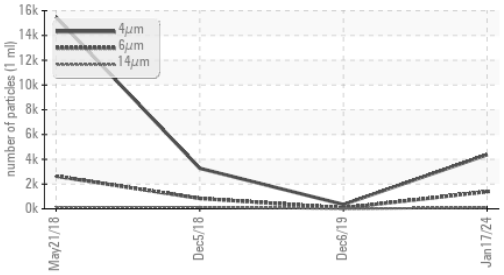
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	**0**	2	2
Barium	ppm	ASTM D5185m	5	**8**	10	9
Molybdenum	ppm	ASTM D5185m	5	**0**	<1	<1
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	25	**6**	4	5
Calcium	ppm	ASTM D5185m	200	**48**	54	49
Phosphorus	ppm	ASTM D5185m	300	**496**	492	478
Zinc	ppm	ASTM D5185m	370	**634**	641	614
Sulfur	ppm	ASTM D5185m	2500	**1624**	1476	1545

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

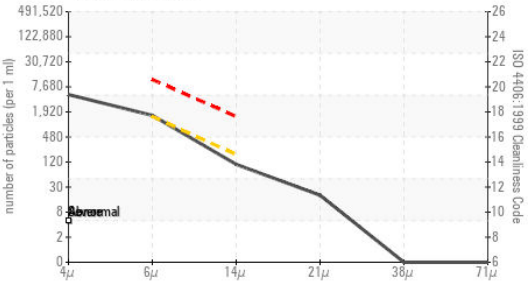
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**4367**	347	3272
Particles >6µm		ASTM D7647	>1300	▲ **1387**	69	840
Particles >14µm		ASTM D7647	>160	**93**	6	138
Particles >21µm		ASTM D7647	>40	**17**	2	71
Particles >38µm		ASTM D7647	>10	**0**	0	12
Particles >71µm		ASTM D7647	>3	**0**	0	2
Oil Cleanliness		ISO 4406 (c)	>--/17/14	▲ **19/18/14**	16/13/10	19/17/14

OIL ANALYSIS REPORT

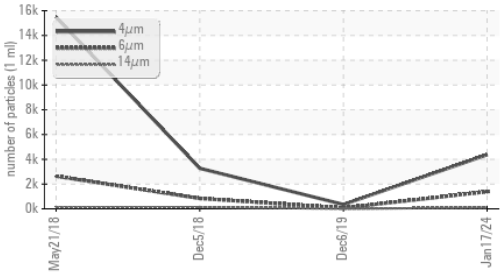
Particle Trend



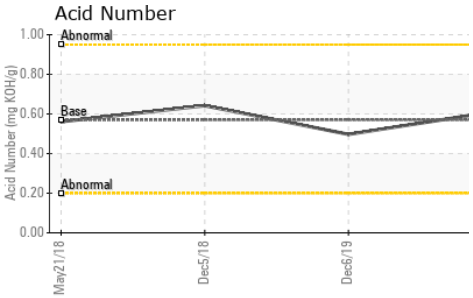
Particle Count



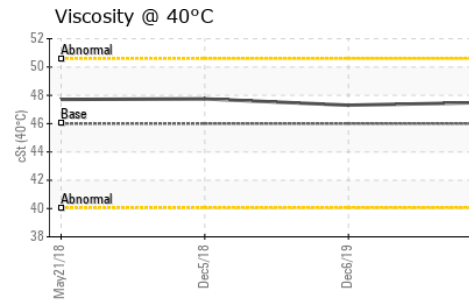
Particle Trend



Acid Number



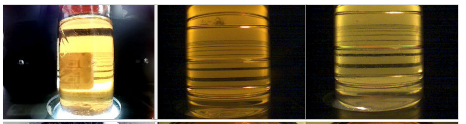
Viscosity @ 40°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	**0.61**	0.497	0.642

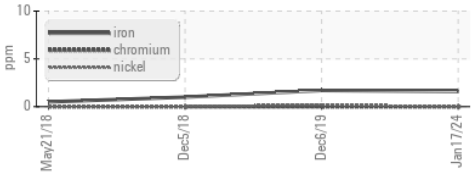
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	VLITE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	**47.5**	47.3	47.75

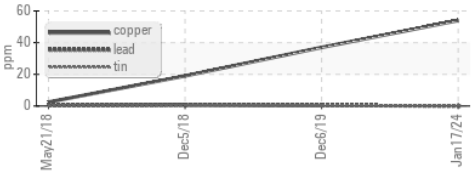
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

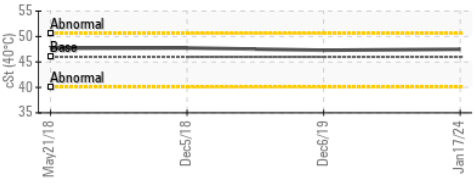
Ferrous Alloys



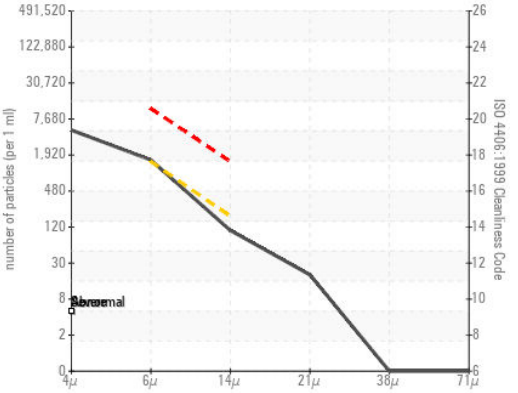
Non-ferrous Metals



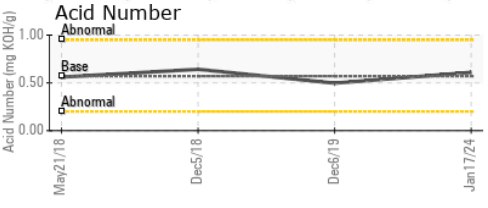
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0819580
Lab Number : 06064270
Unique Number : 10835652
Test Package : IND 2

Recieved : 18 Jan 2024
Diagnosed : 21 Jan 2024
Diagnostician : Don Baldridge

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)

NIAGARA PLASTICS - CAPLUGS
7090 EDINBORO RD
ERIE, PA
US 16509
Contact: JOE SANDERS
joe.sanders@caplugs.com
T: (814)868-3671 x:5131
F: (814)868-9875

Report Id: NIAERI [WUSCAR] 06064270 (Generated: 01/21/2024 09:58:10) Rev: 1

Submitted By: JOE SANDERS