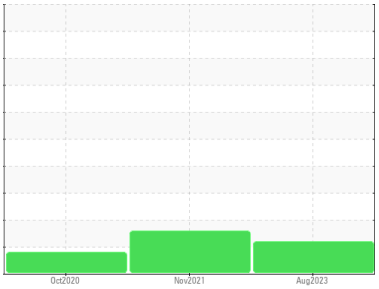
OIL DIAGNOSTICS

PROBLEM SUMMARY

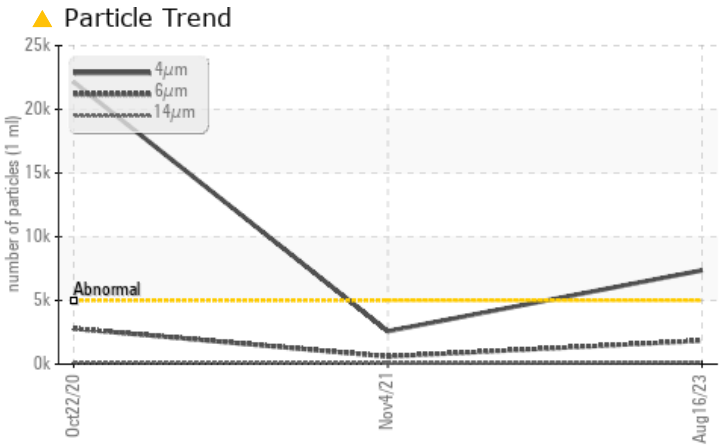
Sample Rating Trend



ISO

Area
24A
Machine Id
[24A] 24A Calender - Roll Mill Hydraulic
Component
Hydraulic System
Fluid
ESSO NUTO H ISO 68 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ABNORMAL	ABNORMAL
Particles >4µm		ASTM D7647	>5000	▲ **7362**	2584	▲ 22150
Particles >6µm		ASTM D7647	>1300	▲ **1845**	600	▲ 2792
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **20/18/14**	19/16/13	▲ 22/19/14

Customer Id: ACHEVE
Sample No.: PCA0076288
Lab Number: 05931512
Test Package: PLANT

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

04 Nov 2021 Diag: Don Baldridge

WEAR

No corrective action is recommended at this time. Resample at the next service interval to monitor.The lead level is abnormal. The tin level is severe. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report

22 Oct 2020 Diag: Jonathan Hester

ISO

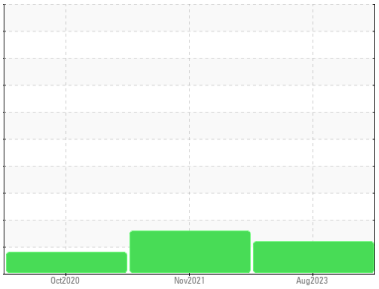
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL DIAGNOSTICS

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
24A
Machine Id
[24A] 24A Calender - Roll Mill Hydraulic
Component
Hydraulic System
Fluid
ESSO NUTO H ISO 68 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All 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		**PCA0076288**	PCA0049843	PCA0024786
Sample Date		Client Info		**16 Aug 2023**	04 Nov 2021	22 Oct 2020
Machine Age	hrs	Client Info		**8760**	0	0
Oil Age	hrs	Client Info		**8760**	0	0
Oil Changed		Client Info		**Oil Added**	N/A	Changed
Sample Status				**ATTENTION**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**<1**	<1	2
Chromium	ppm	ASTM D5185m	>20	**0**	<1	<1
Nickel	ppm	ASTM D5185m	>20	**0**	<1	0
Titanium	ppm	ASTM D5185m		**0**	<1	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**2**	6	5
Lead	ppm	ASTM D5185m	>20	**<1**	▲ 60	4
Copper	ppm	ASTM D5185m	>20	**<1**	6	<1
Tin	ppm	ASTM D5185m	>20	**0**	▲ 24	<1
Antimony	ppm	ASTM D5185m		**---**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	<1	2
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**0**	0	<1
Manganese	ppm	ASTM D5185m		**0**	0	<1
Magnesium	ppm	ASTM D5185m	5	**0**	0	3
Calcium	ppm	ASTM D5185m	50	**47**	3	10
Phosphorus	ppm	ASTM D5185m	330	**371**	528	540
Zinc	ppm	ASTM D5185m	420	**376**	59	30
Sulfur	ppm	ASTM D5185m	3100	**1075**	1602	1095

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**<1**	<1	<1
Sodium	ppm	ASTM D5185m		**2**	5	6
Potassium	ppm	ASTM D5185m	>20	**0**	10	<1

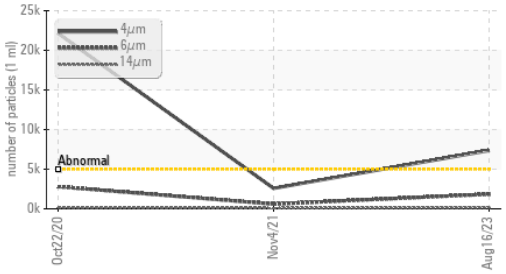
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **7362**	2584	▲ 22150
Particles >6µm		ASTM D7647	>1300	▲ **1845**	600	▲ 2792
Particles >14µm		ASTM D7647	>160	**132**	72	134
Particles >21µm		ASTM D7647	>40	**29**	18	40
Particles >38µm		ASTM D7647	>10	**1**	2	8
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **20/18/14**	19/16/13	▲ 22/19/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	.40	**0.73**	1.764	1.471

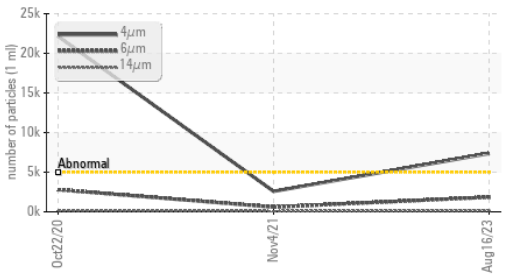
OIL ANALYSIS REPORT

OIL DIAGNOSTICS

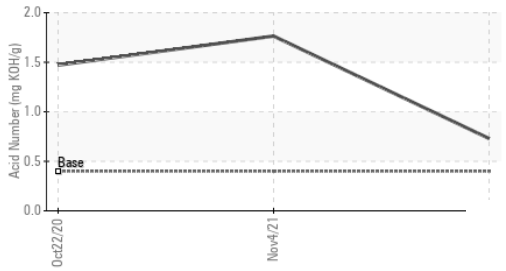
Particle Trend



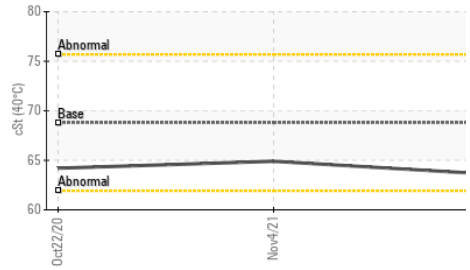
Particle Trend



Acid Number

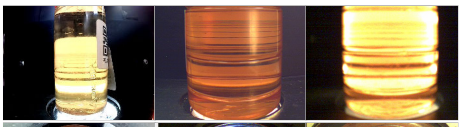
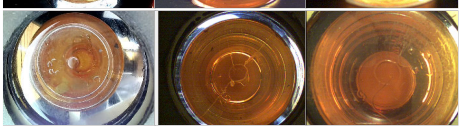


Viscosity @ 40°C



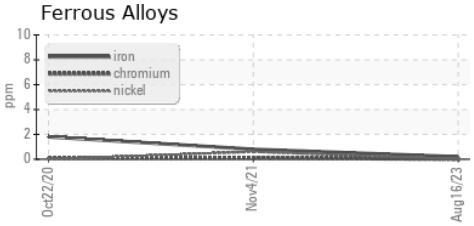
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**LIGHT**	LIGHT	NONE
Sand/Dirt	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	68.8	**63.6**	64.9	64.2

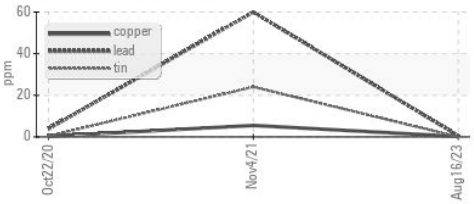
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

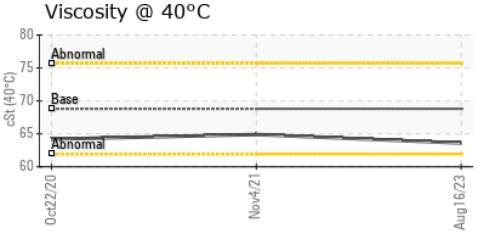
Ferrous Alloys



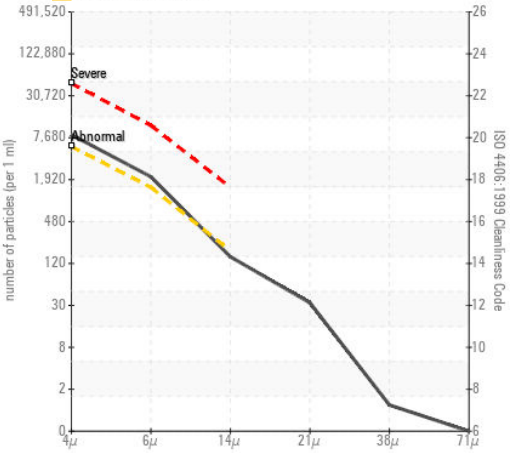
Non-ferrous Metals



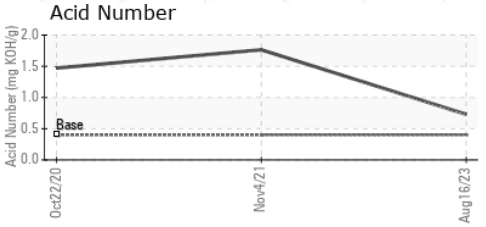
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0076288 **Received** : 22 Aug 2023
Lab Number : 05931512 **Diagnosed** : 24 Aug 2023
Unique Number : 10616783 **Diagnostician** : Don Baldridge
Test Package : PLANT

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)

ACHILLES USA INC
1407 80TH STREET SW
EVERETT, WA
US 98203
Contact: TONY DEHLER
tdehler@achillesusa.com
T: (425)438-4681
F: