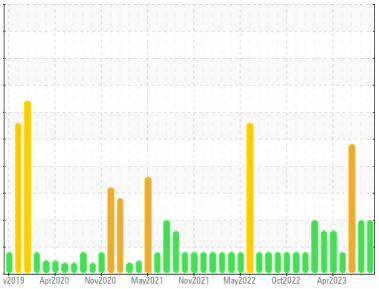
PROBLEM SUMMARY

Area
Direct Strip Mill/Finishing
Machine Id
MTCE TEST BENCH (DSC186)
Component
Hydraulic System
Fluid
SHELL TELLUS S2 MX 46 (350 LTR)

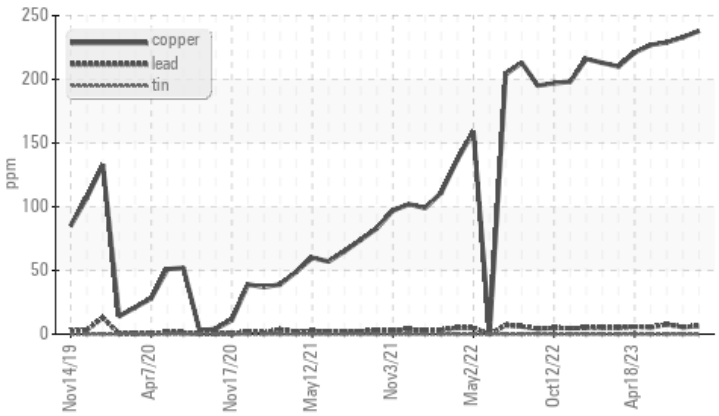
Sample Rating Trend



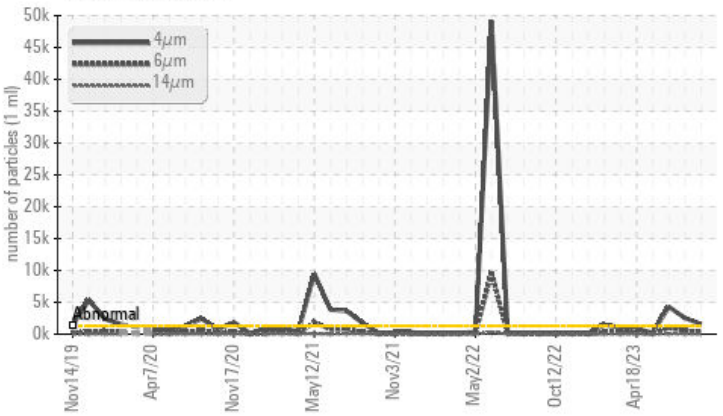
WEAR

COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



▲ Particle Trend



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ATTENTION**	ABNORMAL	ABNORMAL
Copper	ppm	ASTM D5185(m)	>60	▲ **238**	▲ 233	▲ 229
Particles >4µm		ASTM D7647	>1300	▲ **1575**	▲ 2532	▲ 4292
Particles >6µm		ASTM D7647	>160	▲ **318**	▲ 554	▲ 998
Oil Cleanliness		ISO 4406 (c)	>17/14/12	▲ **18/15/10**	▲ 19/16/12	▲ 19/17/13

Customer Id: ALGSSM
Sample No.: WC0837316
Lab Number: 02586202
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

08 Aug 2023 Diag: Kevin Marson

WEAR

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.Copper ppm levels are noted. All other component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

21 Jun 2023 Diag: Kevin Marson

WATER

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.Copper ppm levels are noted. All other component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. There is a moderate concentration of water present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

15 May 2023 Diag: Kevin Marson

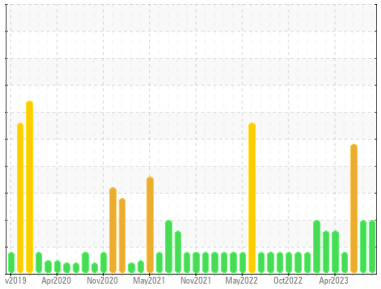
WEAR

Resample at the next service interval to monitor.Copper ppm levels are noted. All other component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
Direct Strip Mill/Finishing
Machine Id
MTCE TEST BENCH (DSC186)
Component
Hydraulic System
Fluid
SHELL TELLUS S2 MX 46 (350 LTR)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear
Copper ppm levels are noted. All other component wear rates are normal.

Contamination
There is a light 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		**WC0837316**	WC0813749	WC0813699
Sample Date		Client Info		**26 Sep 2023**	08 Aug 2023	21 Jun 2023
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				**ATTENTION**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>40	**<1**	<1	<1
Chromium	ppm	ASTM D5185(m)	>4	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>20	**0**	0	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**<1**	<1	<1
Aluminum	ppm	ASTM D5185(m)	>4	**0**	<1	0
Lead	ppm	ASTM D5185(m)	>10	**6**	6	8
Copper	ppm	ASTM D5185(m)	>60	▲ **238**	▲ 233	▲ 229
Tin	ppm	ASTM D5185(m)	>4	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**<1**	0	1
Barium	ppm	ASTM D5185(m)	0	**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)	0	**0**	0	0
Manganese	ppm	ASTM D5185(m)	0	**0**	0	0
Magnesium	ppm	ASTM D5185(m)	70	**16**	16	17
Calcium	ppm	ASTM D5185(m)	10	**5**	6	5
Phosphorus	ppm	ASTM D5185(m)	300	**282**	291	296
Zinc	ppm	ASTM D5185(m)	325	**219**	221	224
Sulfur	ppm	ASTM D5185(m)	665	**686**	639	762
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

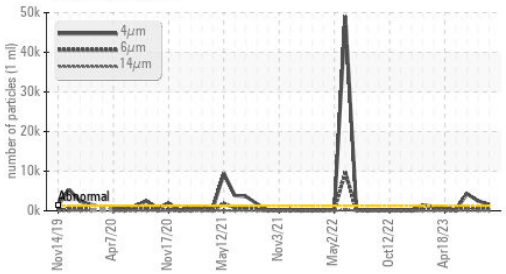
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	**3**	2	3
Sodium	ppm	ASTM D5185(m)		**4**	4	3
Potassium	ppm	ASTM D5185(m)	>20	**0**	<1	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	▲ **1575**	▲ 2532	▲ 4292
Particles >6µm		ASTM D7647	>160	▲ **318**	▲ 554	▲ 998
Particles >14µm		ASTM D7647	>40	**7**	26	▲ 53
Particles >21µm		ASTM D7647	>10	**3**	6	10
Particles >38µm		ASTM D7647	>3	**1**	0	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>17/14/12	▲ **18/15/10**	▲ 19/16/12	▲ 19/17/13

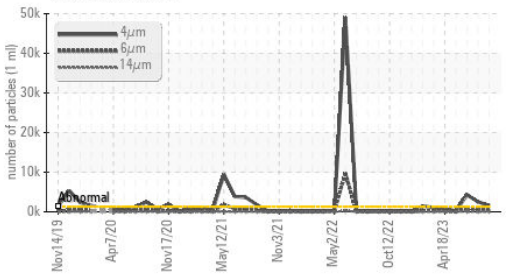
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.35	**0.27**	0.23	0.27

OIL ANALYSIS REPORT

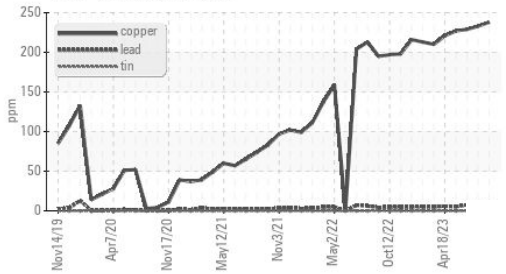
Particle Trend



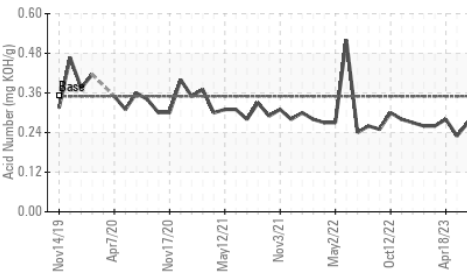
Particle Trend



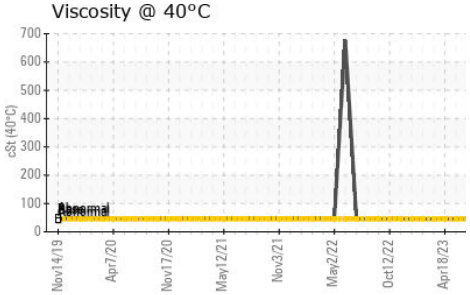
Non-ferrous Metals



Acid Number



Viscosity @ 40°C



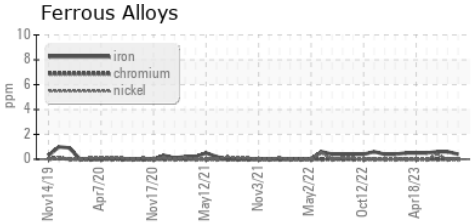
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Appearance	scalar	Visual*	NORML	**HAZY**	NORML	▲ HAZY
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 D7279(m)	46.0	**45.1**	44.9	45.1

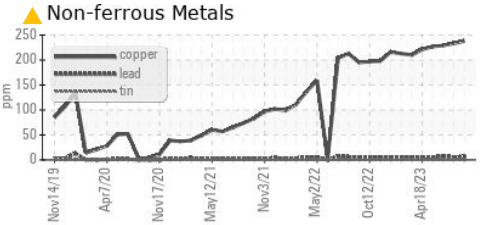
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

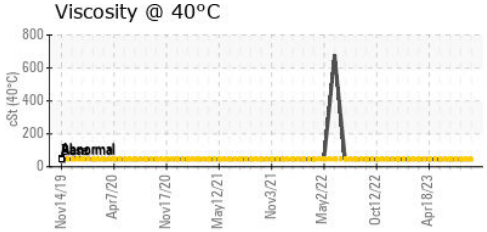
Ferrous Alloys



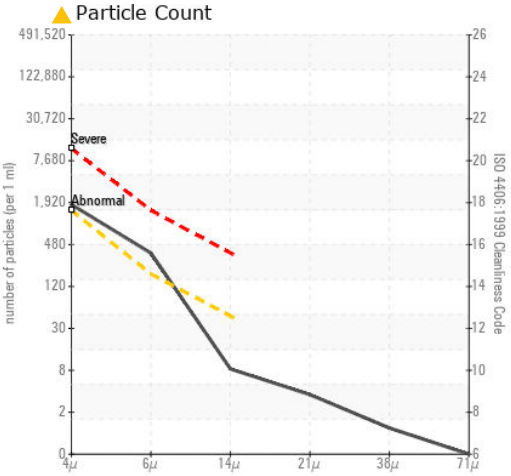
Non-ferrous Metals



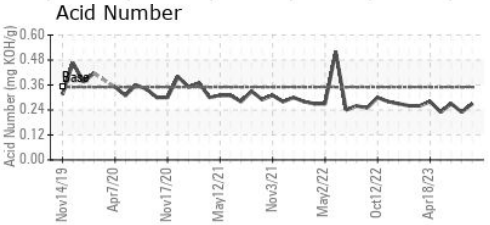
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **ALGOMA STEEL INC. - STORES DEPT.**
Sample No. : WC0837316 **Received** : 02 Oct 2023 301 WALLACE TERRACE
Lab Number : 02586202 **Diagnosed** : 04 Oct 2023 SAULT STE MARIE, ON
Unique Number : 5655268 **Diagnostician** : Kevin Marson CA P6C 1K8
Test Package : IND 2 (Additional Tests: TAN Man) Contact: Algoma Reliability

To discuss this sample report, contact Customer Service at 1-800-268-2131. algomareliability@algoma.com
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (705)206-1059
Validity of results and interpretation are based on the sample and information as supplied. F: (705)945-3585