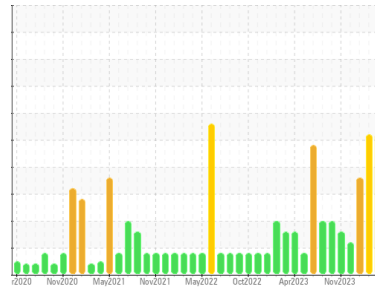




PROBLEM SUMMARY

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

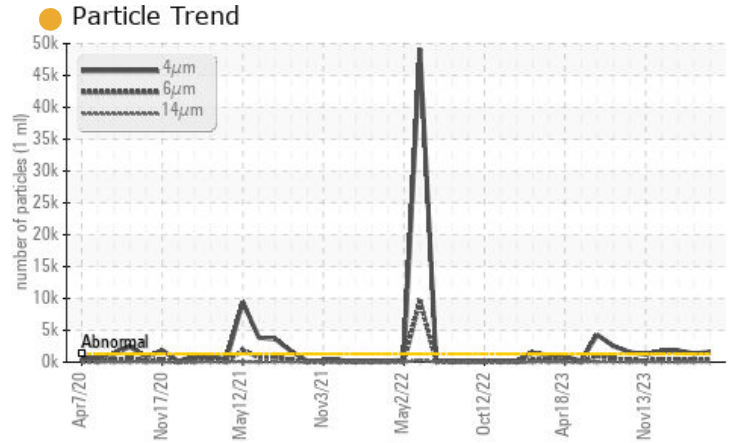
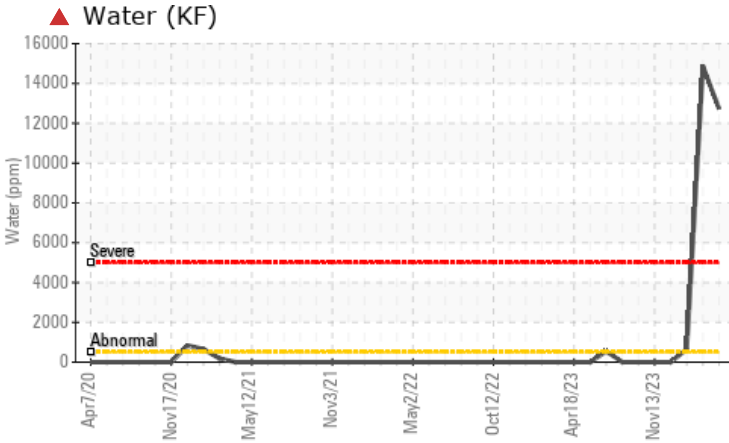
Sample Rating Trend



WATER



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. 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.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	SEVERE	ABNORMAL
Water	%	ASTM D6304*	>0.05	▲ 1.273	▲ 1.486
ppm Water	ppm	ASTM D6304*	>500	▲ 12734	▲ 14870
Appearance	scalar	Visual*	NORML	▲ MILKY	▲ MILKY
Emulsified Water	scalar	Visual*	>0.05	▲ .5%	▲ .2%
					▲ 0.065
					▲ 657
					▲ HAZY
					NEG

Customer Id: ALGSSM
 Sample No.: WC0931158
 Lab Number: 02642151
 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.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Water Access	---	---	?	We advise that you check for the source of water entry.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.
Filter Fluid	---	---	?	We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil.

HISTORICAL DIAGNOSIS

WATER



16 Apr 2024 Diag: Kevin Marson

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. 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. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. There is a high concentration of water present in the oil. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

[view report](#)



WATER



28 Feb 2024 Diag: Kevin Marson

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. All 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](#)



ISO



18 Jan 2024 Diag: Wes Davis

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. All 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.

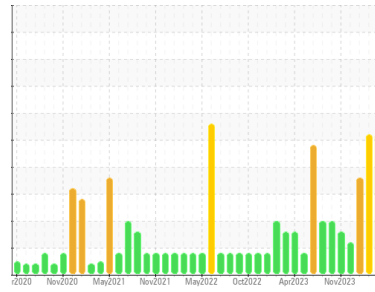
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



WATER



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 advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. 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.

Wear

All component wear rates are normal.

▲ Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil. There is a high concentration of water present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0931158	WC0780544	WC0813571
Sample Date	Client Info		11 Jun 2024	16 Apr 2024	28 Feb 2024
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			SEVERE	SEVERE	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>40	<1	<1
Chromium	ppm	ASTM D5185(m)	>4	0	0
Nickel	ppm	ASTM D5185(m)	>20	0	0
Titanium	ppm	ASTM D5185(m)		0	0
Silver	ppm	ASTM D5185(m)		0	0
Aluminum	ppm	ASTM D5185(m)	>4	0	<1
Lead	ppm	ASTM D5185(m)	>10	<1	1
Copper	ppm	ASTM D5185(m)	>60	33	32
Tin	ppm	ASTM D5185(m)	>4	0	0
Antimony	ppm	ASTM D5185(m)		0	0
Vanadium	ppm	ASTM D5185(m)		0	0
Beryllium	ppm	ASTM D5185(m)		0	0
Cadmium	ppm	ASTM D5185(m)		0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	3	2
Barium	ppm	ASTM D5185(m)	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m)	70	24	20
Calcium	ppm	ASTM D5185(m)	10	9	7
Phosphorus	ppm	ASTM D5185(m)	300	273	258
Zinc	ppm	ASTM D5185(m)	325	337	320
Sulfur	ppm	ASTM D5185(m)	665	1092	807
Lithium	ppm	ASTM D5185(m)		<1	<1

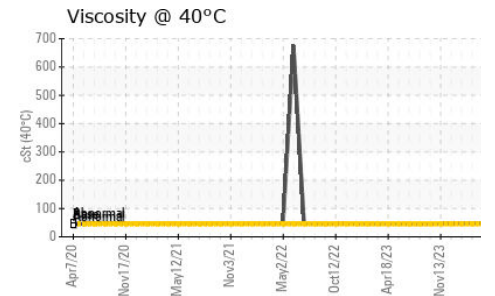
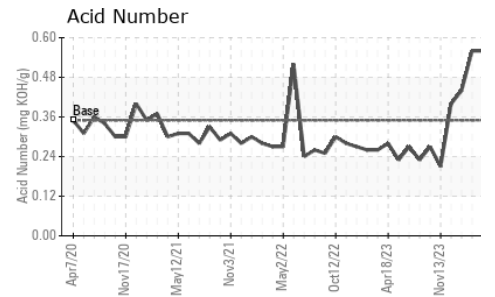
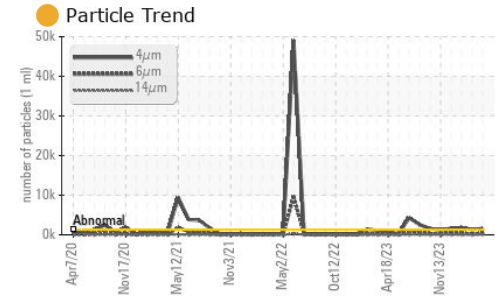
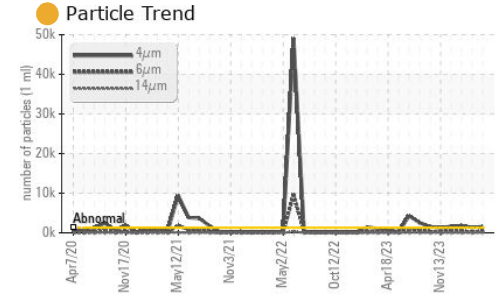
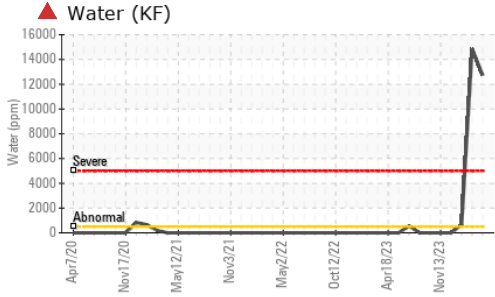
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	0	0
Sodium	ppm	ASTM D5185(m)		7	7
Potassium	ppm	ASTM D5185(m)	>20	<1	<1
Water	%	ASTM D6304*	>0.05	▲ 1.273	▲ 1.486
ppm Water	ppm	ASTM D6304*	>500	▲ 12734	▲ 14870

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>1300	● 1582	● 1361	● 1828
Particles >6µm	ASTM D7647	>160	● 320	● 262	▲ 335
Particles >14µm	ASTM D7647	>40	20	12	13
Particles >21µm	ASTM D7647	>10	5	2	3
Particles >38µm	ASTM D7647	>3	1	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>17/14/12	● 18/15/11	● 18/15/11	▲ 18/16/11

OIL ANALYSIS REPORT

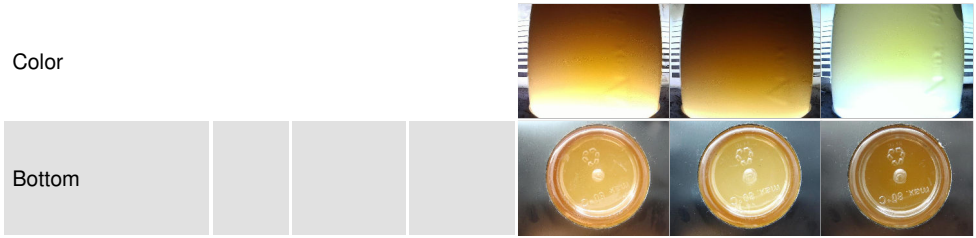


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.35	0.56	0.56	0.44

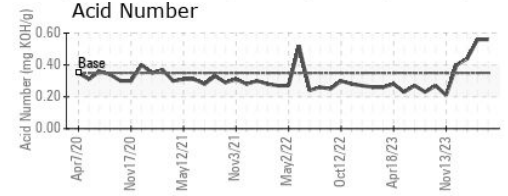
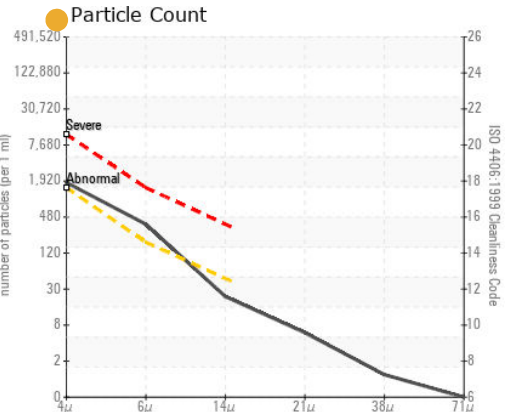
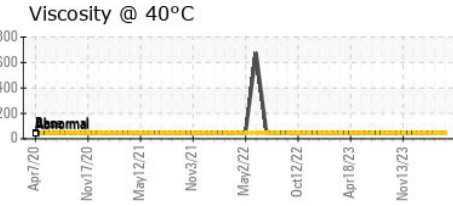
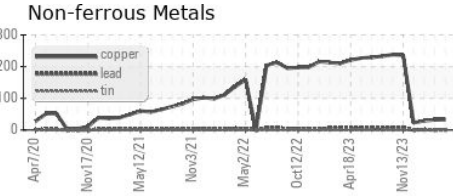
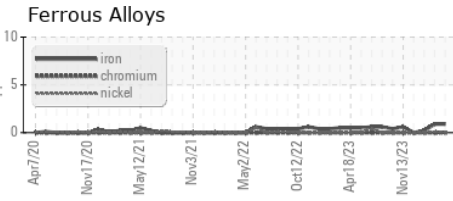
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	VLITE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	▲ MILKY	▲ MILKY	▲ HAZY
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	▲ .5%	▲ .2%	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	49.3	49.2	45.9

SAMPLE IMAGES		method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0931158
Lab Number : 02642151
Unique Number : 5799690
Test Package : IND 2 (Additional Tests: KF, TAN Man)

ALGOMA STEEL INC. - STORES DEPT.
 301 WALLACE TERRACE
 SAULT STE MARIE, ON
 CA P6C 1K8

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

Contact: Algoma Reliability
 algomareliability@algoma.com
 T: (705)206-1059
 F: (705)945-3585