

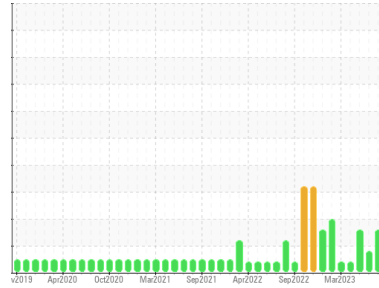


PROBLEM SUMMARY

Sample Rating Trend

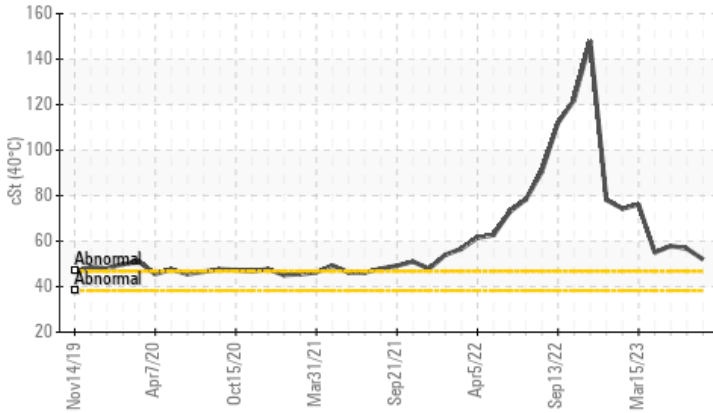
VISCOSITY

Area
Direct Strip Mill/Finishing
 Machine Id
BRIMONT FURNACE HYDRAULIC SYSTEM (DSC015) (S/N 100020510)
 Component
Hydraulic System
 Fluid
HOUGHTON HOUGHTO-SAFE 620 (--- GAL)

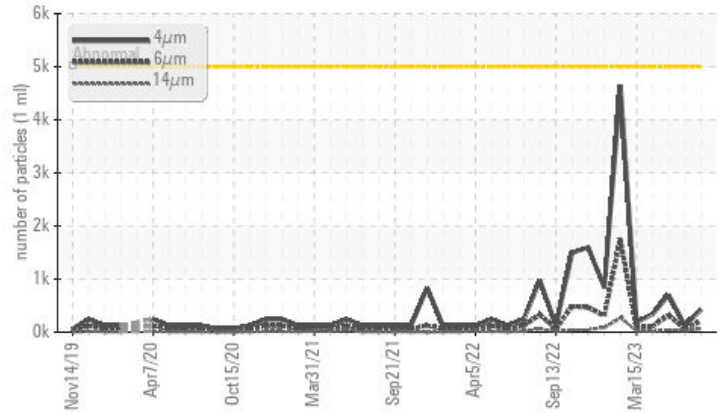


COMPONENT CONDITION SUMMARY

▲ Viscosity @ 40°C



▲ Particle Trend



RECOMMENDATION

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	ABNORMAL
Particles >14µm	ASTM D7647	>40	▲ 67	26	▲ 41
Particles >21µm	ASTM D7647	>10	▲ 39	▲ 15	▲ 18
Oil Cleanliness	ISO 4406 (c)	>19/16/12	▲ 16/15/13	14/13/12	▲ 17/15/13
Visc @ 40°C	cSt	ASTM D7279(m)	▲ 52.0	▲ 56.7	▲ 57.9

Customer Id: ALGSSM
 Sample No.: WC0780837
 Lab Number: 02575514
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
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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 advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Alert	---	---	?	NOTE: We recommend using IND 3 test kits,
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS

21 Jun 2023 Diag: Kevin Marson

VISCOSITY



We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. Viscosity of sample indicates oil is within ISO 46 range, advise investigate. The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



15 May 2023 Diag: Kevin Marson

VISCOSITY



We recommend you service the filters on this component. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. Viscosity of sample indicates oil is within ISO 68 range, advise investigate. The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration level is acceptable for this fluid.

[view report](#)



18 Apr 2023 Diag: Kevin Marson

VISCOSITY



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Viscosity of sample indicates oil is within ISO 46 range, advise investigate. The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration level is acceptable for this fluid. The condition of the oil is suitable for further service.

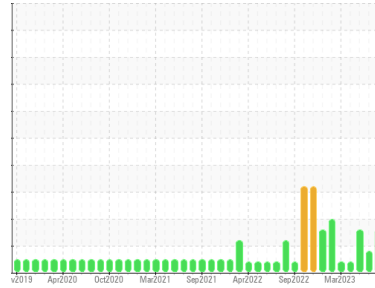
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OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Area
Direct Strip Mill/Finishing
 Machine Id
BRICMONT FURNACE HYDRAULIC SYSTEM (DSC015) (S/N 1000020510)
 Component
Hydraulic System
 Fluid
HOUGHTON HOUGHTO-SAFE 620 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Fluid Condition

Viscosity of sample indicates oil is within ISO 46 range, advise investigate. The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration 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		WC0780837	WC0813662	WC0780846
Sample Date	Client Info		08 Aug 2023	21 Jun 2023	15 May 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			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >40	0	<1	2
Chromium	ppm	ASTM D5185(m) >4	0	<1	<1
Nickel	ppm	ASTM D5185(m) >20	0	0	0
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	<1	0	<1
Aluminum	ppm	ASTM D5185(m) >4	0	0	<1
Lead	ppm	ASTM D5185(m) >10	0	0	0
Copper	ppm	ASTM D5185(m) >60	6	1	5
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	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	3	<1	2
Barium	ppm	ASTM D5185(m)	1	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<1	<1
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m)	3	<1	1
Calcium	ppm	ASTM D5185(m)	3	<1	2
Phosphorus	ppm	ASTM D5185(m)	2	<1	2
Zinc	ppm	ASTM D5185(m)	0	0	0
Sulfur	ppm	ASTM D5185(m)	57	6	13
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

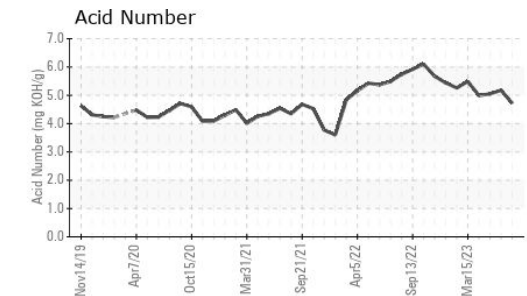
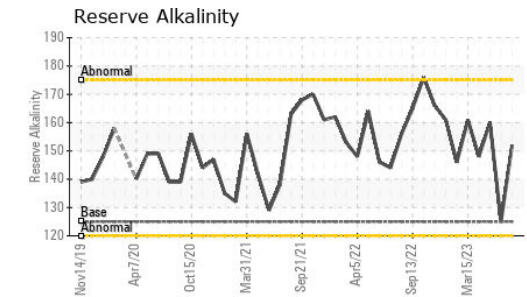
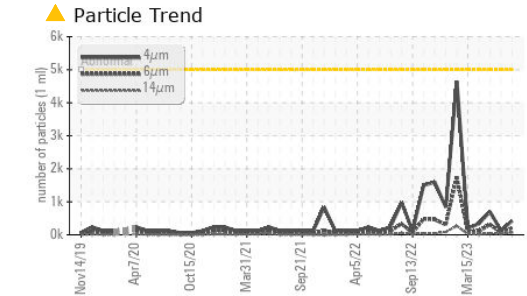
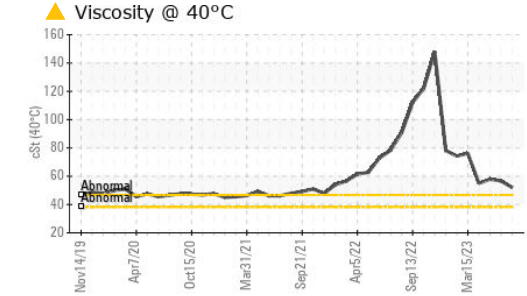
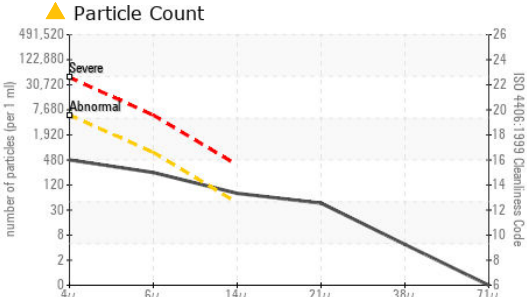
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >20	0	0	<1
Sodium	ppm	ASTM D5185(m)	15	26	43
Potassium	ppm	ASTM D5185(m) >20	22	10	42
Water	%	ASTM D6304* >43.5	37.1	36.0	35.8
ppm Water	ppm	ASTM D6304* >435000	371000	360000	358000

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	423	124	697
Particles >6µm	ASTM D7647	>640	211	67	314
Particles >14µm	ASTM D7647	>40	▲ 67	26	▲ 41
Particles >21µm	ASTM D7647	>10	▲ 39	▲ 15	▲ 18
Particles >38µm	ASTM D7647	>3	4	4	3
Particles >71µm	ASTM D7647	>3	0	2	1
Oil Cleanliness	ISO 4406 (c)	>19/16/12	▲ 16/15/13	14/13/12	▲ 17/15/13



OIL ANALYSIS REPORT

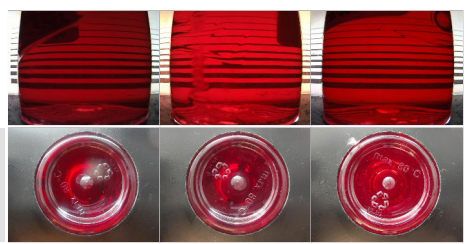


FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	4.72	5.18	5.05
Alkaline Reserve (Oils)	ml KOH/g	ASTM D1121*	125	125	160

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	FRGLY	FRGLY
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>43.5	>10%	>10%
Free Water	scalar	Visual*	NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
pH	Scale 0-14	ASTM D1287*	9.57	9.30	9.48
Visc @ 40°C	cSt	ASTM D7279(m)	52.0	56.7	57.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **ALGOMA STEEL INC. - STORES DEPT.**
Sample No. : WC0780837 **Received** : 11 Aug 2023
Lab Number : **02575514** **Diagnosed** : 22 Aug 2023
Unique Number : 5620565 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: KF, pH, ReserveAlk, TAN Man)

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.

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