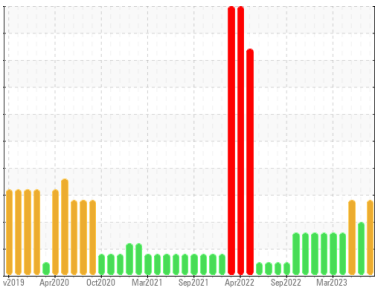
PROBLEM SUMMARY

Sample Rating Trend

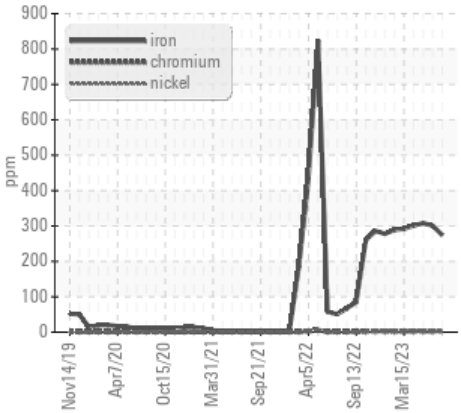


WEAR

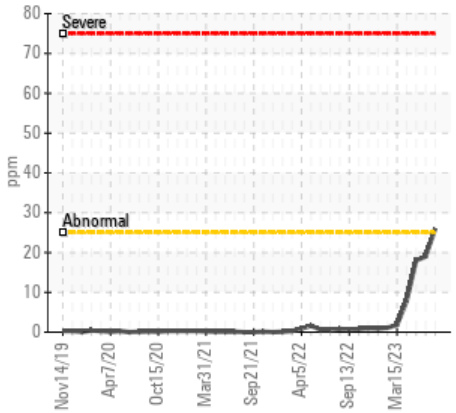
Area
Direct Strip Mill/Finishing
Machine Id
RL7 COILER DRIVE LUBE SYSTEM (DSC022) (S/N 1000017430)
Component
Gear Lube System
Fluid
GEAR OIL ISO 460 (3000 LTR)

COMPONENT CONDITION SUMMARY

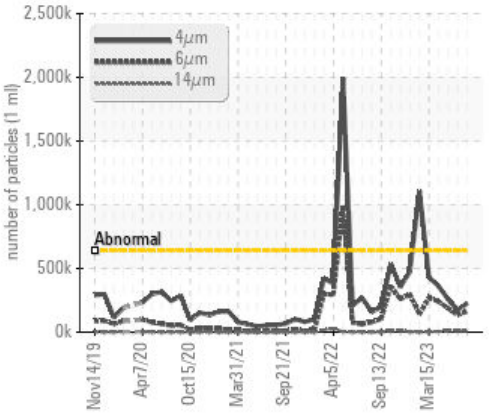
▲ Ferrous Alloys



▲ Aluminum (ppm)



▲ Particle Trend



RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185(m)	>150	▲ **274**	▲ 301	▲ 308
Aluminum	ppm	ASTM D5185(m)	>25	▲ **26**	▲ 19	▲ 18
Antimony	ppm	ASTM D5185(m)	>5	▲ **12**	▲ 8	▲ 8
Particles >6µm		ASTM D7647	>160000	▲ **164074**	134441	▲ 187178
Oil Cleanliness		ISO 4406 (c)	>26/24/22	▲ **25/25/20**	25/24/21	▲ 25/25/20

Customer Id: ALGSSM
Sample No.: WC0780880
Lab Number: 02575465
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.
Contact Required	---	---	?	Please contact your representative for information regarding the proper sampling kits for your service.
Alert	---	---	?	NOTE: We recommend using IND 3 test kits,
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample.

HISTORICAL DIAGNOSIS

WEAR

21 Jun 2023 Diag: Kevin Marson

We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.Iron ppm levels are abnormal. Aluminum and antimony ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. 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

WEAR

15 May 2023 Diag: Kevin Marson

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.Iron ppm levels are abnormal. Aluminum and antimony ppm levels are noted. A sharp increase in the aluminum level is noted. A sharp increase in the antimony level is noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. There is a light 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

WEAR

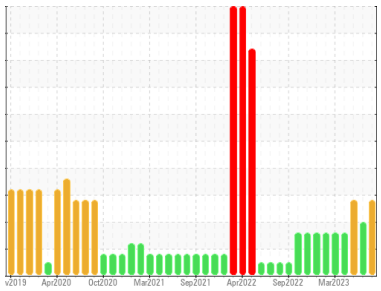
18 Apr 2023 Diag: Kevin Marson

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.Iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. There is a light 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 ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
Direct Strip Mill/Finishing
Machine Id
RL7 COILER DRIVE LUBE SYSTEM (DSC022) (S/N 1000017430)
Component
Gear Lube System
Fluid
GEAR OIL ISO 460 (3000 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

Wear

Aluminum, iron and antimony ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

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		**WC0780880**	WC0813693	WC0780853
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

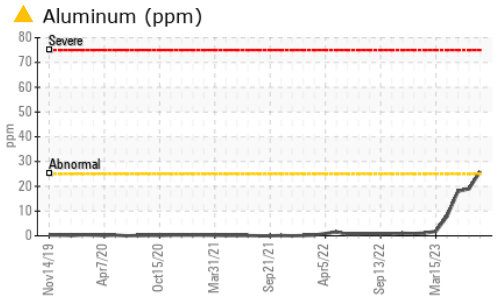
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**0**	52	55
Iron	ppm	ASTM D5185(m)	>150	▲ **274**	▲ 301	▲ 308
Chromium	ppm	ASTM D5185(m)	>10	**2**	3	3
Nickel	ppm	ASTM D5185(m)	>10	**2**	2	3
Titanium	ppm	ASTM D5185(m)		**0**	<1	<1
Silver	ppm	ASTM D5185(m)		**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>25	▲ **26**	▲ 19	▲ 18
Lead	ppm	ASTM D5185(m)	>100	**0**	<1	0
Copper	ppm	ASTM D5185(m)	>50	**2**	2	1
Tin	ppm	ASTM D5185(m)	>10	**0**	0	0
Antimony	ppm	ASTM D5185(m)	>5	▲ **12**	▲ 8	▲ 8
Vanadium	ppm	ASTM D5185(m)		**0**	0	<1
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

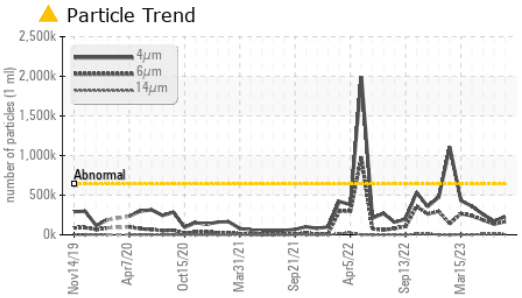
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	50	**<1**	<1	<1
Barium	ppm	ASTM D5185(m)	15	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	15	**11**	8	7
Manganese	ppm	ASTM D5185(m)		**3**	3	3
Magnesium	ppm	ASTM D5185(m)	50	**<1**	<1	<1
Calcium	ppm	ASTM D5185(m)	50	**4**	3	<1
Phosphorus	ppm	ASTM D5185(m)	350	**202**	204	220
Zinc	ppm	ASTM D5185(m)	100	**4**	5	4
Sulfur	ppm	ASTM D5185(m)	12500	**7917**	8331	8616
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

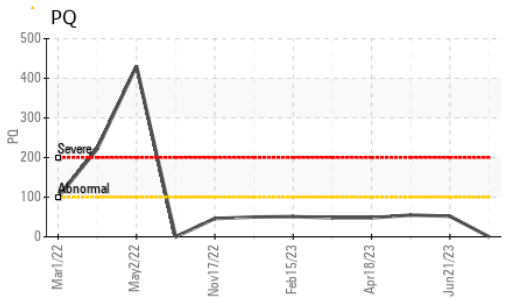
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	**3**	2	2
Sodium	ppm	ASTM D5185(m)		**22**	19	18
Potassium	ppm	ASTM D5185(m)	>20	**3**	3	3

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>640000	**226402**	172865	258144
Particles >6µm		ASTM D7647	>160000	▲ **164074**	134441	▲ 187178
Particles >14µm		ASTM D7647	>40000	**6760**	11960	7922
Particles >21µm		ASTM D7647	>10000	**164**	326	231
Particles >38µm		ASTM D7647	>2500	**2**	1	1
Particles >71µm		ASTM D7647	>640	**0**	1	1
Oil Cleanliness		ISO 4406 (c)	>26/24/22	▲ **25/25/20**	25/24/21	▲ 25/25/20

OIL ANALYSIS REPORT





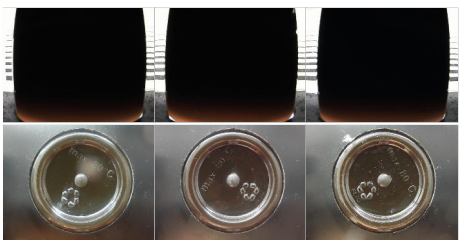


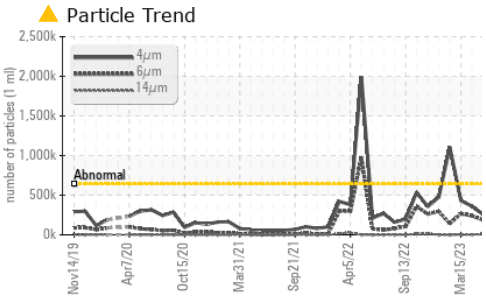
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.85	**0.42**	0.49	0.43

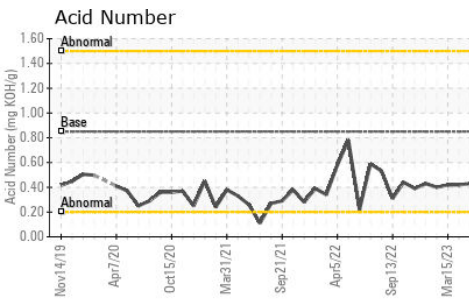
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	**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)	460	**458**	452	459

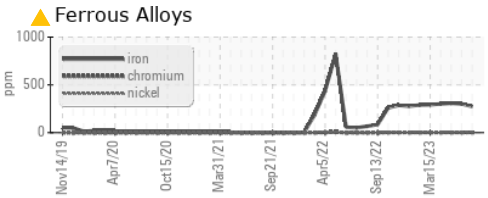
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

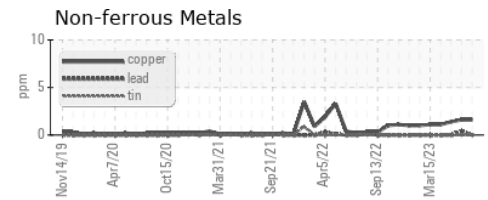


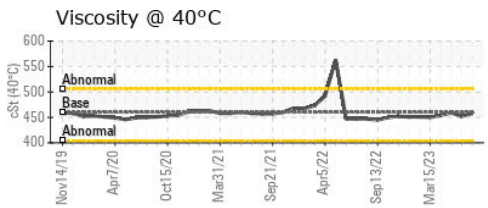


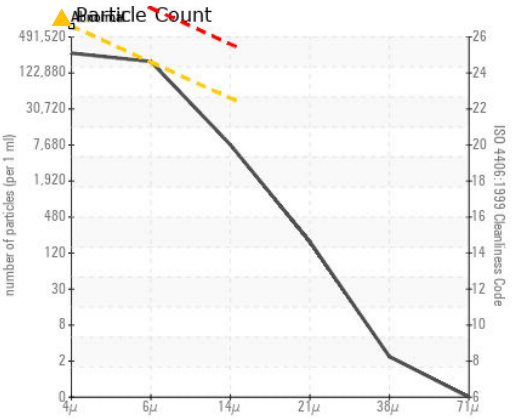


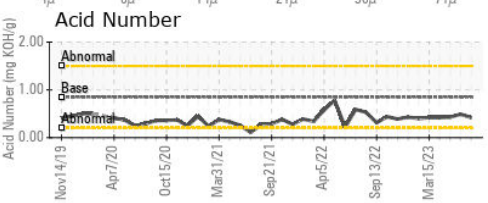
GRAPHS











ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **ALGOMA STEEL INC. - STORES DEPT.**
Sample No. : WC0780880 **Received** : 11 Aug 2023 301 WALLACE TERRACE
Lab Number : 02575465 **Diagnosed** : 14 Aug 2023 SAULT STE MARIE, ON
Unique Number : 5620516 **Diagnostician** : Kevin Marson CA P6C 1K8
Test Package : IND 2 (Additional Tests: PQ) 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