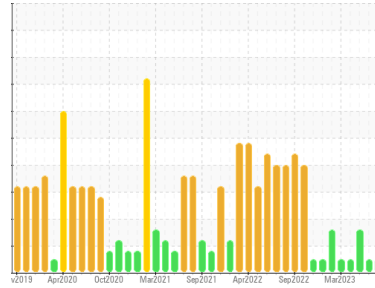




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
Direct Strip Mill/Finishing
 Machine Id
PL4-F5/F6 MORGOIL SYSTEM (DSC019) (S/N 1000017099)
 Component
Gear Lube System
 Fluid
SHELL OMALA S2 G 320 (25000 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

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		WC0780841	WC0813690	WC0780850
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			NORMAL	NORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >150	72	65	68
Chromium	ppm	ASTM D5185(m) >10	<1	<1	<1
Nickel	ppm	ASTM D5185(m) >10	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	<1	<1	<1
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >25	<1	<1	<1
Lead	ppm	ASTM D5185(m) >100	0	0	<1
Copper	ppm	ASTM D5185(m) >50	<1	<1	<1
Tin	ppm	ASTM D5185(m) >10	3	3	4
Antimony	ppm	ASTM D5185(m) >5	<1	<1	<1
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) 5.5	<1	<1	2
Barium	ppm	ASTM D5185(m) 0.4	0	0	0
Molybdenum	ppm	ASTM D5185(m) 0.5	0	0	0
Manganese	ppm	ASTM D5185(m)	<1	<1	<1
Magnesium	ppm	ASTM D5185(m) 23	<1	<1	<1
Calcium	ppm	ASTM D5185(m) 13	2	2	<1
Phosphorus	ppm	ASTM D5185(m) 450	165	175	174
Zinc	ppm	ASTM D5185(m) 9.9	8	7	5
Sulfur	ppm	ASTM D5185(m) 8181	7517	8072	8270
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >50	11	2	1
Sodium	ppm	ASTM D5185(m)	3	3	3
Potassium	ppm	ASTM D5185(m) >20	<1	1	<1

FLUID CLEANLINESS

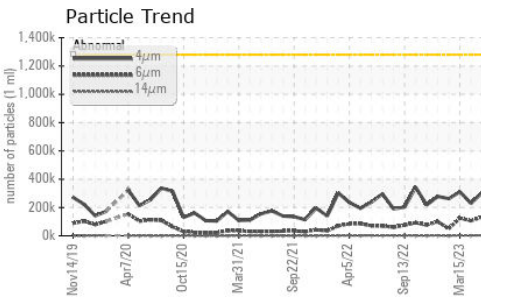
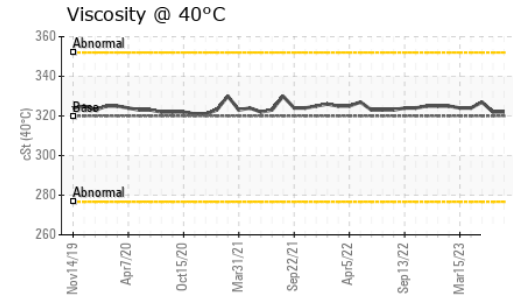
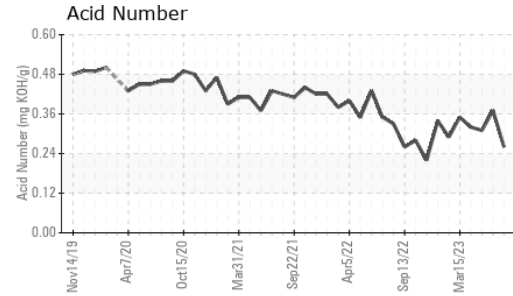
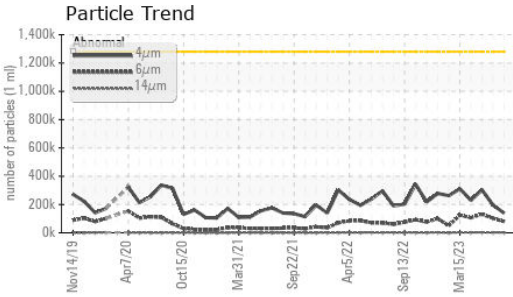
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>1280000	139423	195705	303530
Particles >6µm	ASTM D7647	>640000	79733	103075	131345
Particles >14µm	ASTM D7647	>20000	2309	3020	3346
Particles >21µm	ASTM D7647	>5000	216	339	420
Particles >38µm	ASTM D7647	>1300	4	3	2
Particles >71µm	ASTM D7647	>320	2	0	0
Oil Cleanliness	ISO 4406 (c)	>27/26/21	24/23/18	25/24/19	25/24/19

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.26	0.37	0.31



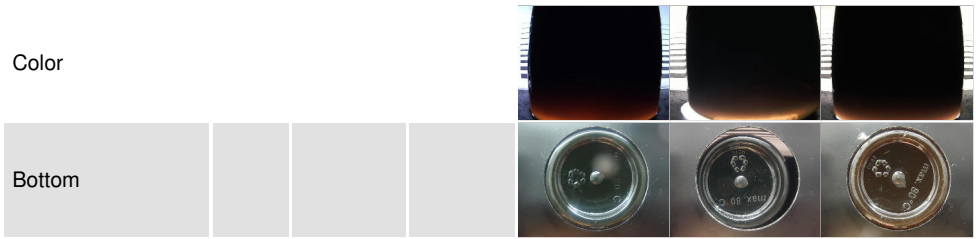
OIL ANALYSIS REPORT



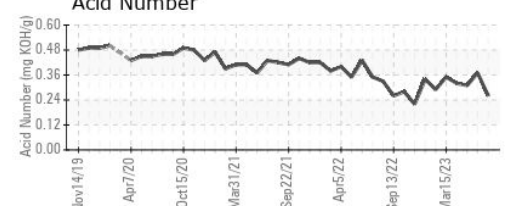
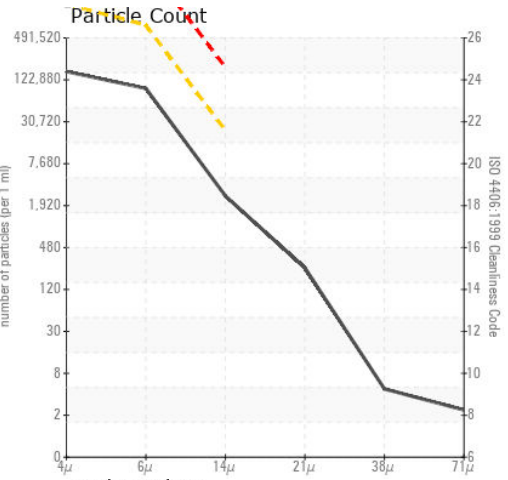
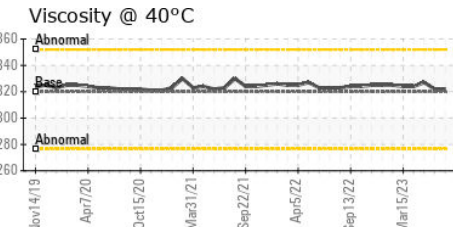
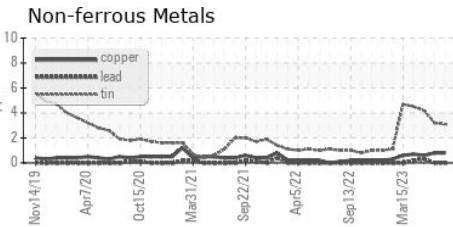
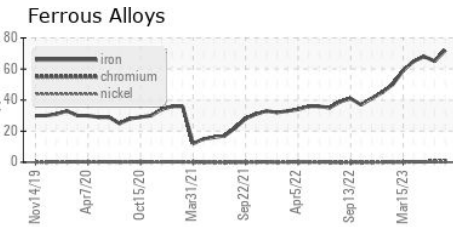
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	▲ .2%
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	320	322	327

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **ALGOMA STEEL INC. - STORES DEPT.**
Sample No. : WC0780841 **Received** : 11 Aug 2023 **301 WALLACE TERRACE**
Lab Number : 02575460 **Diagnosed** : 14 Aug 2023 **SAULT STE MARIE, ON**
Unique Number : 5620511 **Diagnostician** : Wes Davis **CA P6C 1K8**
Test Package : IND 2

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