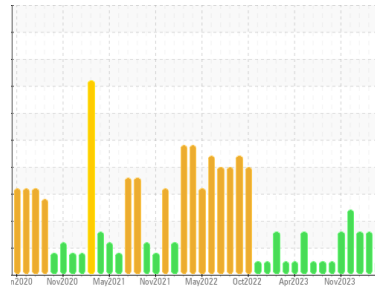




# OIL ANALYSIS REPORT

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	<b>WC0931101</b>	WC0837486	WC0837547
Sample Date	Client Info	<b>11 Jun 2024</b>	16 Apr 2024	28 Feb 2024
Machine Age	hrs	Client Info	<b>0</b>	0
Oil Age	hrs	Client Info	<b>0</b>	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method	<b>&gt;0.1</b>	<b>NEG</b>	NEG

## WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185(m)	>150	<b>93</b>	87	72
Chromium	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>&lt;1</b>	<1	1
Lead	ppm	ASTM D5185(m)	>100	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>50	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>10	<b>4</b>	4	5
Antimony	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185(m)	5.5	<b>&lt;1</b>	1	1
Barium	ppm	ASTM D5185(m)	0.4	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0.5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185(m)	23	<b>1</b>	<1	<1
Calcium	ppm	ASTM D5185(m)	13	<b>2</b>	2	3
Phosphorus	ppm	ASTM D5185(m)	450	<b>176</b>	158	175
Zinc	ppm	ASTM D5185(m)	9.9	<b>6</b>	4	5
Sulfur	ppm	ASTM D5185(m)	8181	<b>8178</b>	7710	8992
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

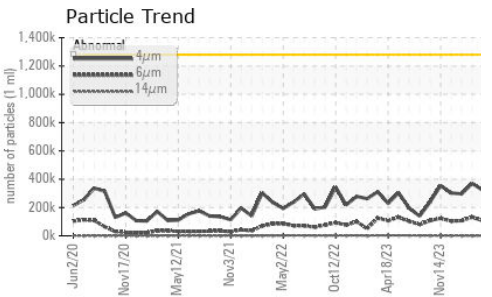
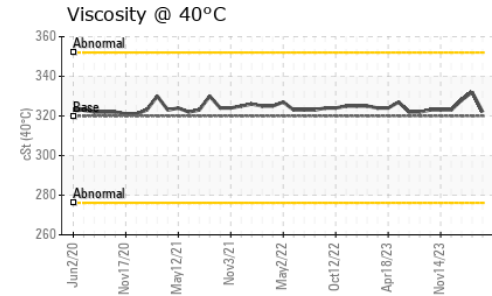
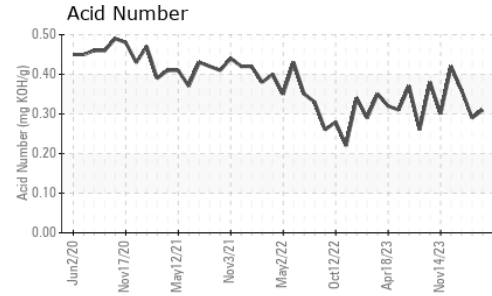
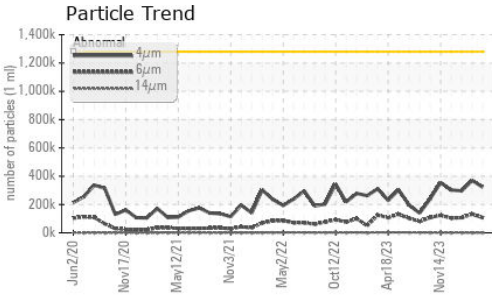
method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>50	<b>&lt;1</b>	<1	2
Sodium	ppm	ASTM D5185(m)		<b>5</b>	3	3
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	1	1

## FLUID CLEANLINESS

method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>1280000	<b>323120</b>	369711	295925
Particles >6µm	ASTM D7647	>640000	<b>107574</b>	132765	106949
Particles >14µm	ASTM D7647	>20000	<b>684</b>	1067	1277
Particles >21µm	ASTM D7647	>5000	<b>58</b>	88	172
Particles >38µm	ASTM D7647	>1300	<b>1</b>	1	1
Particles >71µm	ASTM D7647	>320	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>27/26/21	<b>26/24/17</b>	26/24/17	25/24/17



# OIL ANALYSIS REPORT

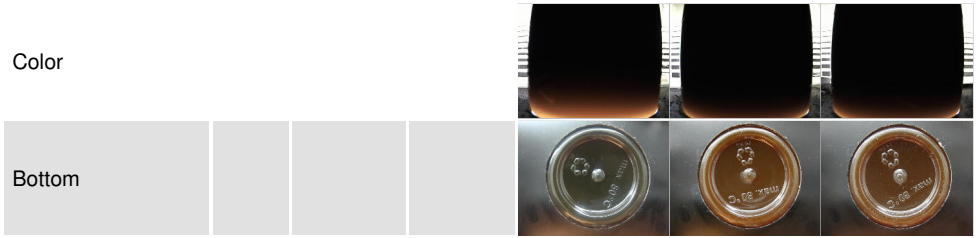


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		<b>0.31</b>	0.29	0.36

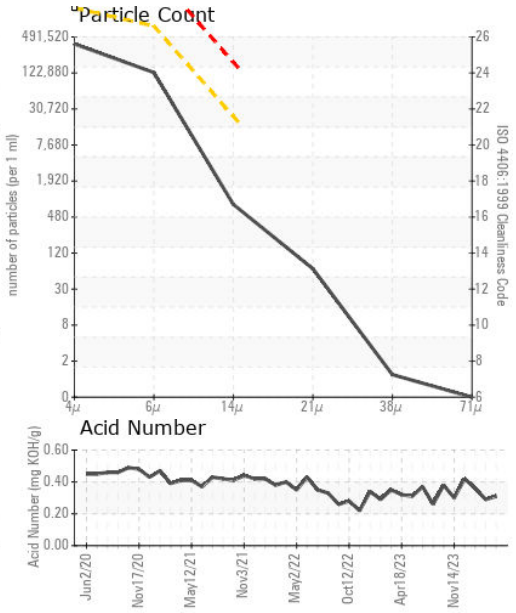
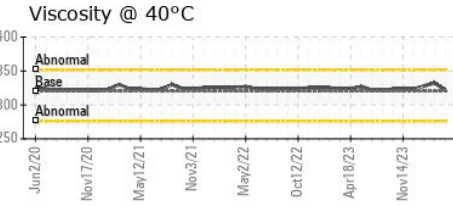
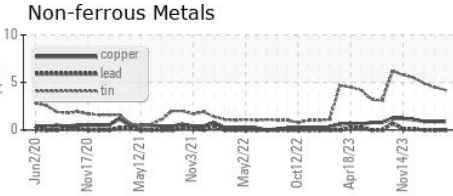
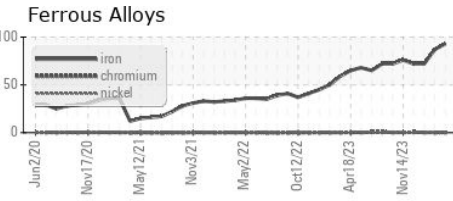
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	▲ .5%	▲ .2%
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	320	<b>322</b>	332	328

## SAMPLE IMAGES



## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0931101  
**Lab Number** : 02642111  
**Unique Number** : 5799650  
**Test Package** : IND 2 ( Additional Tests: TAN Man )  
**Received** : 14 Jun 2024  
**Tested** : 17 Jun 2024  
**Diagnosed** : 17 Jun 2024 - Wes Davis

**ALGOMA STEEL INC. - STORES DEPT.**  
 301 WALLACE TERRACE  
 SAULT STE MARIE, ON  
 CA P6C 1K8  
 Contact: Algoma Reliability  
 algomareliability@algoma.com  
 T: (705)206-1059  
 F: (705)945-3585

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.