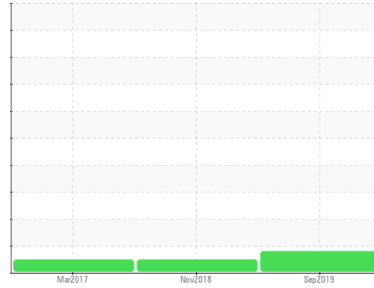




# OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Area  
**Plate Mill/166 Hot Mill**  
 Machine Id  
**AGC HYD (PLS109) (S/N 1000001454)**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 32 (--- GAL)**

## DIAGNOSIS

### Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

### Contamination

Particles >4µm are abnormally high. Particles >6µm are notably high.

### 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>WC0361683</b>	WC	WC0282408
Sample Date	Client Info			<b>20 Sep 2019</b>	19 Nov 2018	23 Mar 2017
Machine Age	mths	Client Info		<b>0</b>	0	0
Oil Age	mths	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.05	<b>NEG</b>	NEG	NEG

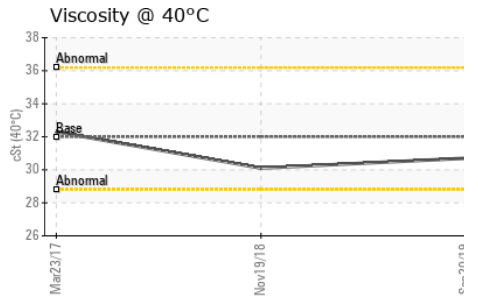
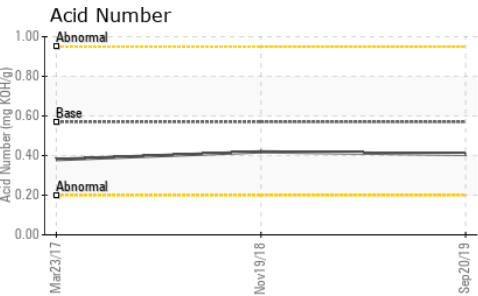
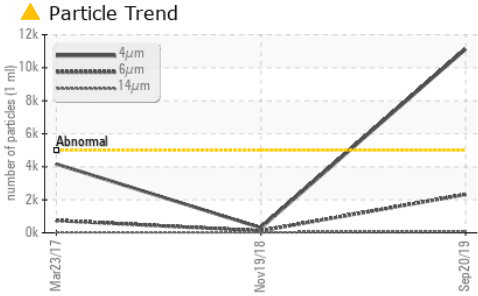
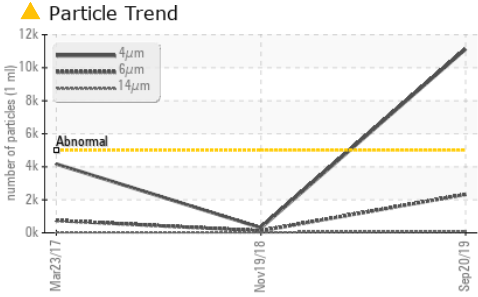
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Lead	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	2
Tin	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>&lt;1</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	<b>&lt;1</b>	0	<1
Barium	ppm	ASTM D5185(m)	5	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185(m)	25	<b>&lt;1</b>	1	15
Calcium	ppm	ASTM D5185(m)	200	<b>32</b>	34	38
Phosphorus	ppm	ASTM D5185(m)	300	<b>287</b>	277	279
Zinc	ppm	ASTM D5185(m)	370	<b>346</b>	338	269
Sulfur	ppm	ASTM D5185(m)	2500	<b>706</b>	720	2692
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	<1
Sodium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	<b>▲ 11132</b>	301	4167
Particles >6µm		ASTM D7647	>1300	<b>● 2322</b>	121	742
Particles >14µm		ASTM D7647	>160	<b>75</b>	27	31
Particles >21µm		ASTM D7647	>40	<b>19</b>	10	7
Particles >38µm		ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 21/18/13</b>	15/14/12	19/17/12

# OIL ANALYSIS REPORT

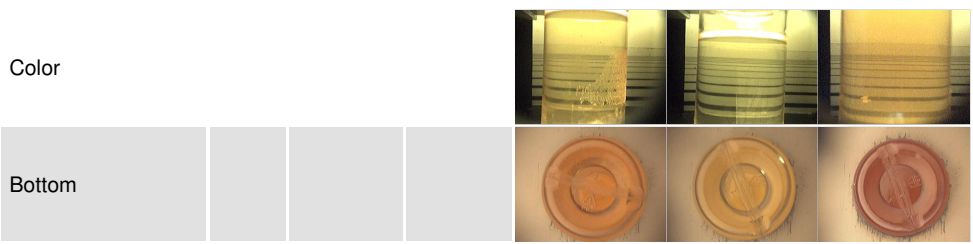


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	<b>0.406</b>	0.419	0.38

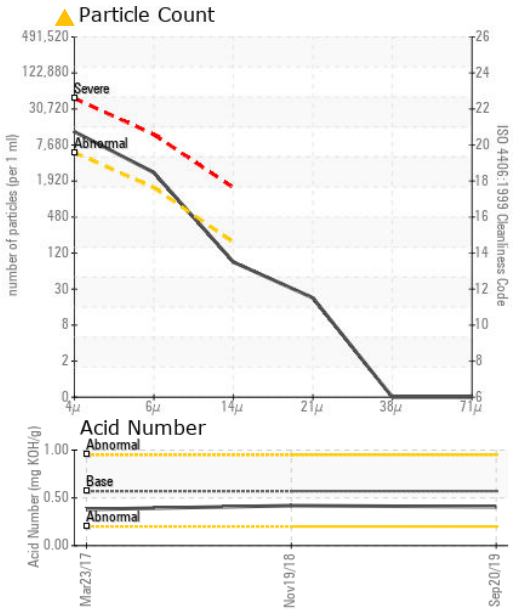
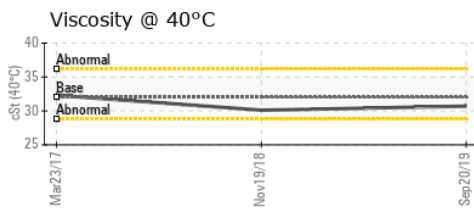
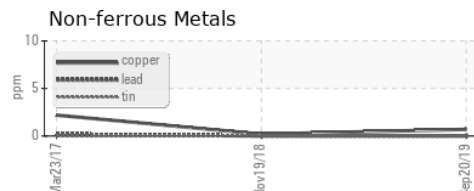
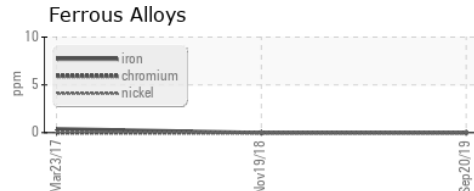
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>VLITE</b>	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*	>0.05	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32	<b>30.7</b>	30.1	32.3

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.** : WC0361683  
**Lab Number** : **02310228**  
**Unique Number** : 4929513  
**Test Package** : IND 2 ( Additional Tests: TAN Man )  
**Received** : 23 Sep 2019  
**Tested** : 24 Sep 2019  
**Diagnosed** : 24 Sep 2019 - Bill Quesnel

**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.