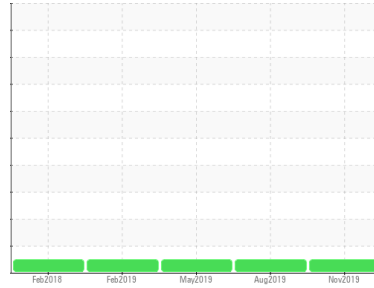




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
Plate Mill/166 Hot Mill
 Machine Id
#1 LUBE SYSTEM (PLS005) (S/N 1000001259)
 Component
Gear Lube System
 Fluid
GEAR OIL ISO 460 (--- 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. Resample at the next service interval to monitor. 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

There is no indication of any contamination 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			WC0361441	WC0361693	WC0311174
Sample Date	Client Info			18 Nov 2019	14 Aug 2019	21 May 2019
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	Not Chngd	N/A
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.1	NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		8	10	25
Iron	ppm	ASTM D5185(m)	>150	25	29	25
Chromium	ppm	ASTM D5185(m)	>10	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>10	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	2	3	2
Lead	ppm	ASTM D5185(m)	>100	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>50	2	2	1
Tin	ppm	ASTM D5185(m)	>10	0	<1	0
Antimony	ppm	ASTM D5185(m)		<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

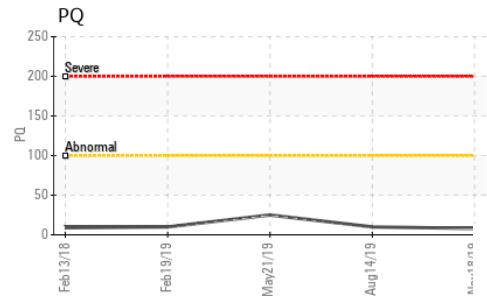
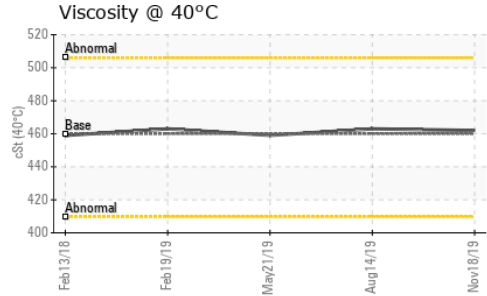
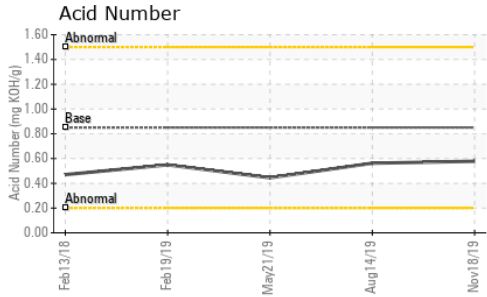
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	50	6	8	10
Barium	ppm	ASTM D5185(m)	15	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	15	<1	0	<1
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	50	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	50	8	10	11
Phosphorus	ppm	ASTM D5185(m)	350	271	294	291
Zinc	ppm	ASTM D5185(m)	100	2	2	1
Sulfur	ppm	ASTM D5185(m)	12500	10487	10405	10195
Lithium	ppm	ASTM D5185(m)		<1	<1	0

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	2	2	2
Sodium	ppm	ASTM D5185(m)		0	0	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.85	0.578	0.562	0.445



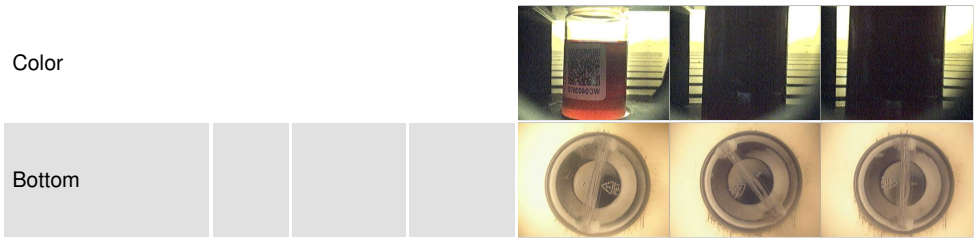
OIL ANALYSIS REPORT



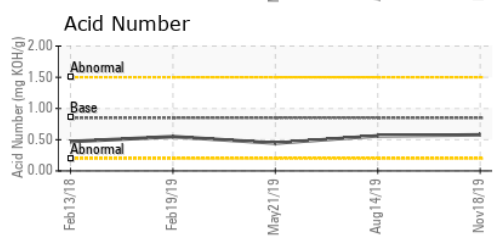
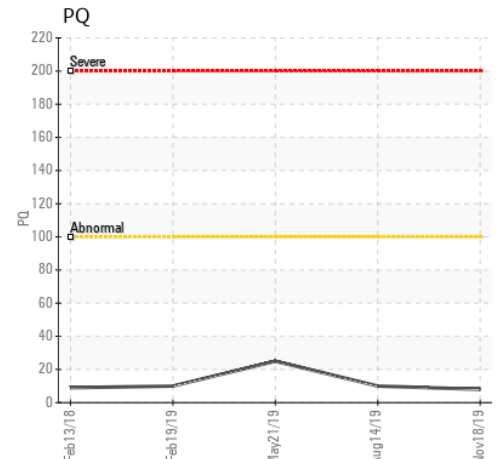
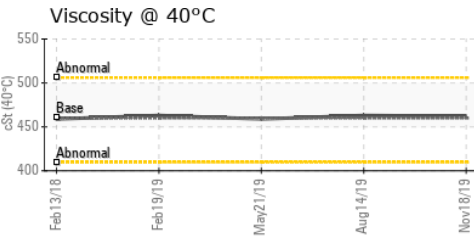
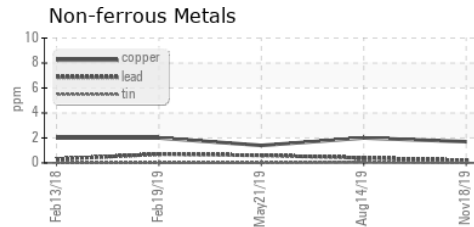
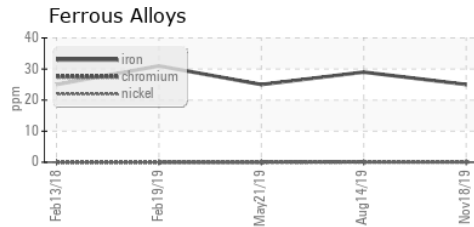
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	460	462	463	459

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. : WC0361441
Lab Number : **02321863**
Unique Number : 4965161
Test Package : IND 2 (Additional Tests: TAN Man)
Received : 21 Nov 2019
Tested : 22 Nov 2019
Diagnosed : 22 Nov 2019 - Wes Davis

ALGOMA STEEL INC. - STORES DEPT.
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 CA P6C 1K8
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 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.