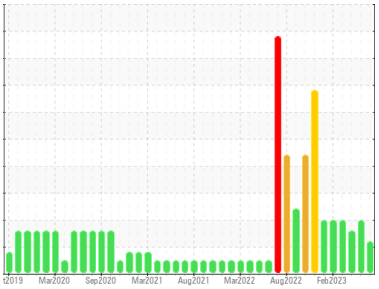
PROBLEM SUMMARY

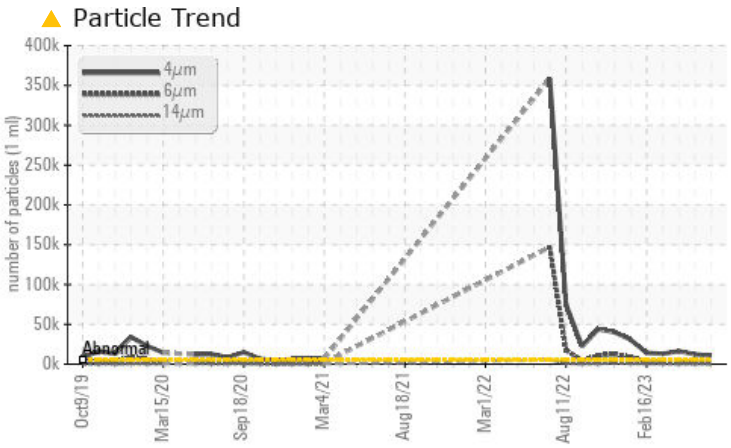
Sample Rating Trend



ISO

Area
Direct Strip Mill/Caster
Machine Id
TSC 460 BULK (S/N DSC 205)
Component
New (Unused) Oil
Fluid
GEAR OIL ISO 460 (5000 LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

This is the baseline readout on this new (unused) oil. The fluid is suitable for service. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. NOTE: New oils are not generally filtered or guaranteed to a certain cleanliness code. We advise that you verify the target cleanliness code for your application and recommend the use of a portable filter cart to fill any system with a target code below the ISO cleanliness code of this product.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Particles >4µm		ASTM D7647	>5000	▲ **10717**	▲ 12291	▲ 16320
Particles >6µm		ASTM D7647	>1300	▲ **2361**	▲ 3109	▲ 4057
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/18/14**	▲ 21/19/15	▲ 21/19/15

Customer Id: ALGSSM
Sample No.: WC0780856
Lab Number: 02575474
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
Resample	---	---	?	We recommend an early resample to monitor this condition.
Alert	---	---	?	NOTE: New oils are not generally filtered or guaranteed to a certain cleanliness code. We advise that you verify the target cleanliness code for your application and recommend the use of a portable filter cart to fill any system with a target code below the ISO cleanliness code of this product.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample.

HISTORICAL DIAGNOSIS

ISO

22 Jun 2023 Diag: Kevin Marson

This is the baseline readout on this new (unused) oil. The fluid is suitable for service. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. NOTE: New oils are not generally filtered or guaranteed to a certain cleanliness code. We advise that you verify the target cleanliness code for your application and recommend the use of a portable filter cart to fill any system with a target code below the ISO cleanliness code of this product.{not applicable} There is a moderate 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 service. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

ISO

16 May 2023 Diag: Kevin Marson

This is the baseline readout on this new (unused) oil. The fluid is suitable for service. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. NOTE: New oils are not generally filtered or guaranteed to a certain cleanliness code. We advise that you verify the target cleanliness code for your application and recommend the use of a portable filter cart to fill any system with a target code below the ISO cleanliness code of this product.{not applicable} There is a moderate 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 service. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

ISO

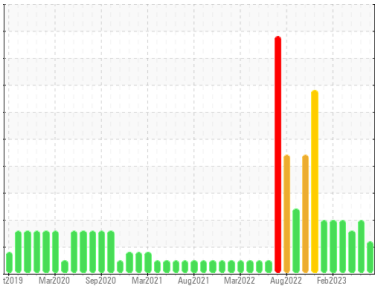
16 Mar 2023 Diag: Kevin Marson

This is the baseline readout on this new (unused) oil. The fluid is suitable for service. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. NOTE: New oils are not generally filtered or guaranteed to a certain cleanliness code. We advise that you verify the target cleanliness code for your application and recommend the use of a portable filter cart to fill any system with a target code below the ISO cleanliness code of this product.{not applicable} Oil Cleanliness are abnormally high. Particles >4µm are abnormally high. Particles >6µm are abnormally high. Particles >14µm are notably high. Particles >21µm are notably high. The AN level is acceptable for this fluid. The condition of the oil is suitable for service. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
Direct Strip Mill/Caster
Machine Id
TSC 460 BULK (S/N DSC 205)
Component
New (Unused) Oil
Fluid
GEAR OIL ISO 460 (5000 LTR)

DIAGNOSIS

Recommendation

This is the baseline readout on this new (unused) oil. The fluid is suitable for service. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. NOTE: New oils are not generally filtered or guaranteed to a certain cleanliness code. We advise that you verify the target cleanliness code for your application and recommend the use of a portable filter cart to fill any system with a target code below the ISO cleanliness code of this product.

Wear

{not applicable}

Contamination

There is a moderate 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 service. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0780856**	WC0813652	WC0780802
Sample Date		Client Info		**09 Aug 2023**	22 Jun 2023	16 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
Iron	ppm	ASTM D5185(m)	>5	**<1**	<1	<1
Chromium	ppm	ASTM D5185(m)	>5	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>5	**0**	<1	0
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)	>5	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>5	**<1**	0	0
Lead	ppm	ASTM D5185(m)	>5	**0**	0	<1
Copper	ppm	ASTM D5185(m)	>5	**<1**	<1	0
Tin	ppm	ASTM D5185(m)	>5	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	0	<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

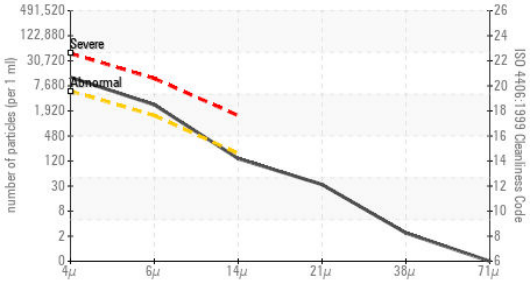
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	50	**0**	<1	<1
Barium	ppm	ASTM D5185(m)	15	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	15	**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)	50	**<1**	0	0
Calcium	ppm	ASTM D5185(m)	50	**<1**	1	0
Phosphorus	ppm	ASTM D5185(m)	350	**278**	283	325
Zinc	ppm	ASTM D5185(m)	100	**2**	2	1
Sulfur	ppm	ASTM D5185(m)	12500	**9262**	9718	9905
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**7**	6	6
Sodium	ppm	ASTM D5185(m)		**0**	0	0
Potassium	ppm	ASTM D5185(m)	>20	**0**	0	0

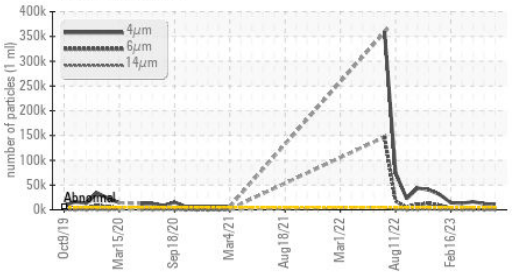
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		**0**	0	0
Nitration	Abs/cm	ASTM D7624*		**3.4**	3.3	3.2
Sulfation	Abs/.1mm	ASTM D7415*		**13.2**	12.2	12.6

OIL ANALYSIS REPORT

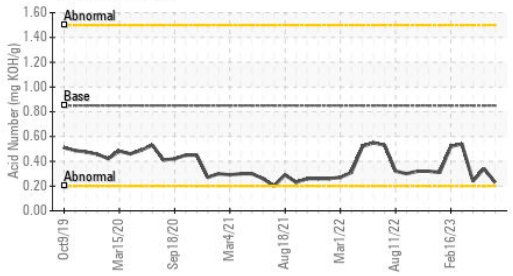
Particle Count



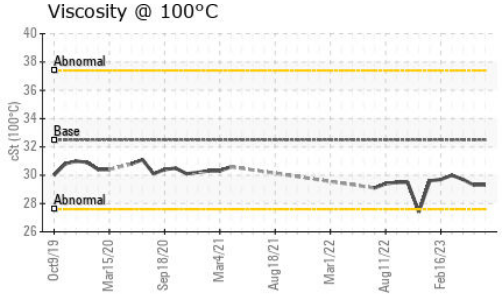
Particle Trend



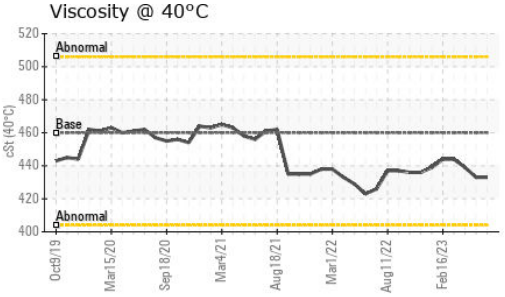
Acid Number



Viscosity @ 100°C



Viscosity @ 40°C

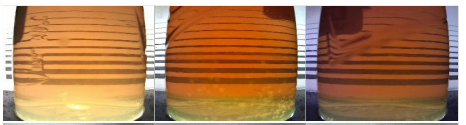


FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **10717**	▲ 12291	▲ 16320
Particles >6µm		ASTM D7647	>1300	▲ **2361**	▲ 3109	▲ 4057
Particles >14µm		ASTM D7647	>160	**121**	▲ 214	▲ 185
Particles >21µm		ASTM D7647	>40	**29**	▲ 66	39
Particles >38µm		ASTM D7647	>10	**2**	8	3
Particles >71µm		ASTM D7647	>3	**0**	4	2
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/18/14**	▲ 21/19/15	▲ 21/19/15

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*		**2.7**	2.8	2.6
Acid Number (AN)	mg KOH/g	ASTM D974*	0.85	**0.23**	0.34	0.24

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	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*		**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	**433**	433	439
Visc @ 100°C	cSt	ASTM D7279(m)	32.5	**29.3**	29.3	29.7
Viscosity Index (VI)	Scale	ASTM D2270*	103	**95**	95	96

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **ALGOMA STEEL INC. - STORES DEPT.**
Sample No. : WC0780856 **Received** : 11 Aug 2023
Lab Number : 02575474 **Diagnosed** : 14 Aug 2023
Unique Number : 5620525 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, VI)

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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.