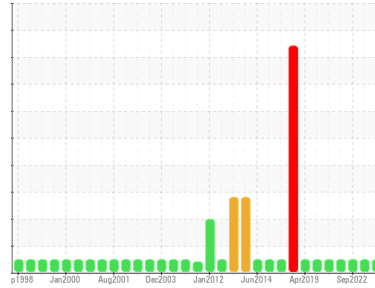




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
Caster/Segment Drives
 Machine Id
B - Strand 2 - 1 Gear Box Roll # 85 Top
 Component
Gearbox
 Fluid
SHELL OMALA 220 (45 GAL)

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

Viscosity of sample indicates oil is within ISO 320 range, advise investigate. 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	WC0898679	WC0824374	WC0743628
Sample Date	Client Info	10 Jan 2024	30 May 2023	13 Sep 2022
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >5	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184* >DFLT	12	9	0
Iron	ppm ASTM D5185(m) >200	24	21	21
Chromium	ppm ASTM D5185(m) >15	<1	<1	0
Nickel	ppm ASTM D5185(m) >15	<1	0	<1
Titanium	ppm ASTM D5185(m)	0	<1	<1
Silver	ppm ASTM D5185(m)	0	0	0
Aluminum	ppm ASTM D5185(m) >25	<1	0	<1
Lead	ppm ASTM D5185(m) >100	0	0	<1
Copper	ppm ASTM D5185(m) >200	<1	0	0
Tin	ppm ASTM D5185(m) >25	0	0	0
Antimony	ppm ASTM D5185(m) >5	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

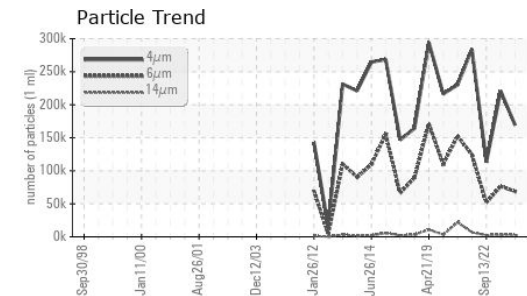
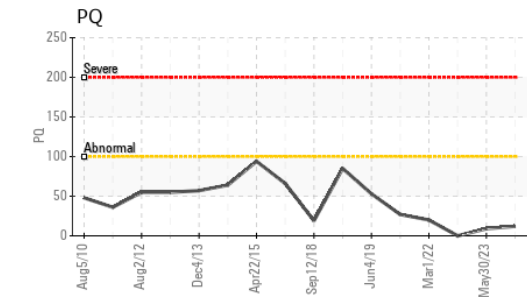
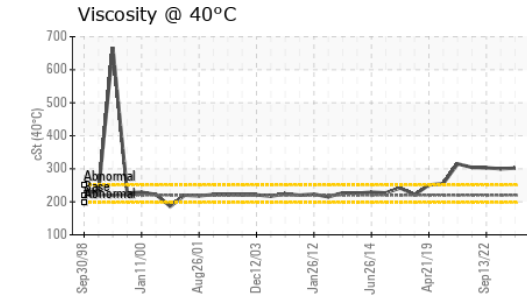
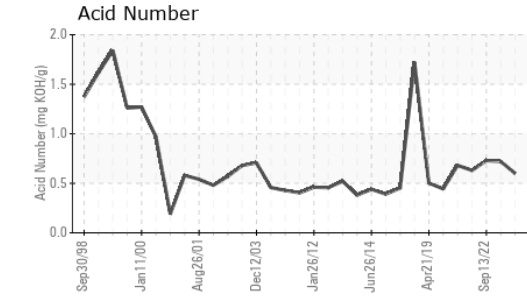
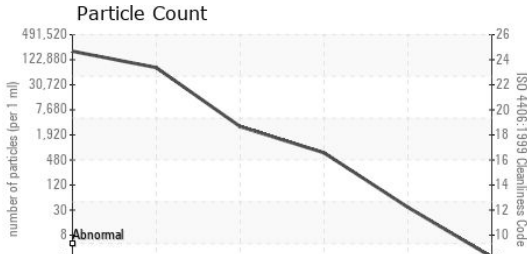
method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 4.4	21	22	23
Barium	ppm ASTM D5185(m) 0.0	0	0	0
Molybdenum	ppm ASTM D5185(m) 0	0	0	0
Manganese	ppm ASTM D5185(m)	0	<1	<1
Magnesium	ppm ASTM D5185(m) 0	1	<1	<1
Calcium	ppm ASTM D5185(m) 0	3	1	3
Phosphorus	ppm ASTM D5185(m) 215	316	341	341
Zinc	ppm ASTM D5185(m) 0	2	3	1
Sulfur	ppm ASTM D5185(m) 7039	14965	14934	15677
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

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



OIL ANALYSIS REPORT



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		169207	220868	112960
Particles >6µm	ASTM D7647	>10240000	68710	76675	51772
Particles >14µm	ASTM D7647	>10240000	2656	3114	2458
Particles >21µm	ASTM D7647	>2560000	626	732	654
Particles >38µm	ASTM D7647	>640000	31	17	20
Particles >71µm	ASTM D7647	>160000	2	0	2
Oil Cleanliness	ISO 4406 (c)	>--/30/30	25/23/19	25/23/19	24/23/18

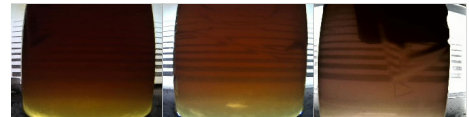
FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*		0.60	0.72	0.73

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar Visual*	NONE	VLITE	VLITE	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*	>5	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)	220	302	300	303

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color



Bottom



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **STELCO - BOSC - Basic Oxygen Slab Caster**
 Sample No. : WC0898679 **Received** : 10 Jan 2024 2330 Regional Road #3, Door: BOSC8
 Lab Number : **02608026** **Diagnosed** : 12 Jan 2024 NANTICOKE, ON
 Unique Number : 5709112 **Diagnostician** : Kevin Marson CA N0A 1L0
 Test Package : IND 2 (Additional Tests: PQ, PrtCount)

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: Tom Walden
 Thomas.Walden@stelco.com
 T: (519)587-4541
 F: (519)587-7702