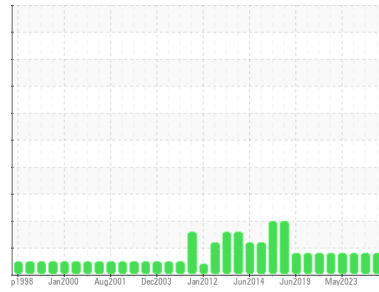




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area

Caster/Segment Drives

Machine Id

B - Strand 2 - 1 Gear Box Roll # 30 Top

Component

Gearbox

Fluid

SHELL OMALA 220 (36 GAL)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

Iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion.

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 oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0968494	WC0913399	WC0898696
Sample Date	Client Info		17 Jul 2024	23 Feb 2024	10 Jan 2024
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

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	0	0	0
Iron	ppm	ASTM D5185(m)	>200	▲ 743	▲ 709
Chromium	ppm	ASTM D5185(m)	>15	7	7
Nickel	ppm	ASTM D5185(m)	>15	7	7
Titanium	ppm	ASTM D5185(m)		0	0
Silver	ppm	ASTM D5185(m)		0	0
Aluminum	ppm	ASTM D5185(m)	>25	<1	1
Lead	ppm	ASTM D5185(m)	>100	<1	<1
Copper	ppm	ASTM D5185(m)	>200	<1	<1
Tin	ppm	ASTM D5185(m)	>25	0	0
Antimony	ppm	ASTM D5185(m)	>5	0	0
Vanadium	ppm	ASTM D5185(m)		0	0
Beryllium	ppm	ASTM D5185(m)		0	0
Cadmium	ppm	ASTM D5185(m)		0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	4.4	1	1
Barium	ppm	ASTM D5185(m)	0.0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<1	<1
Manganese	ppm	ASTM D5185(m)		5	5
Magnesium	ppm	ASTM D5185(m)	0	2	3
Calcium	ppm	ASTM D5185(m)	0	3	2
Phosphorus	ppm	ASTM D5185(m)	215	624	603
Zinc	ppm	ASTM D5185(m)	0	58	54
Sulfur	ppm	ASTM D5185(m)	7039	7297	7546
Lithium	ppm	ASTM D5185(m)		<1	<1

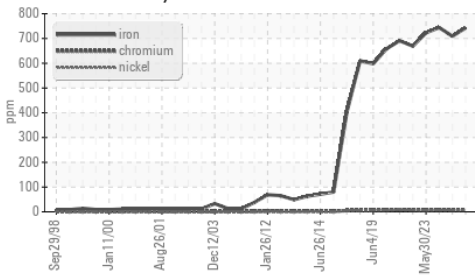
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	2	2
Sodium	ppm	ASTM D5185(m)		4	3
Potassium	ppm	ASTM D5185(m)	>20	3	2

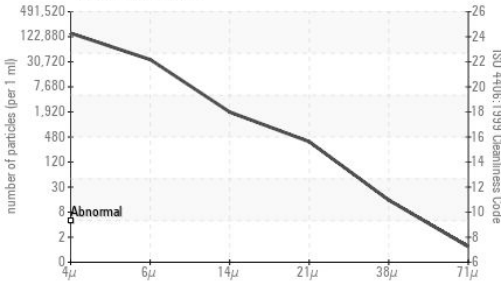


OIL ANALYSIS REPORT

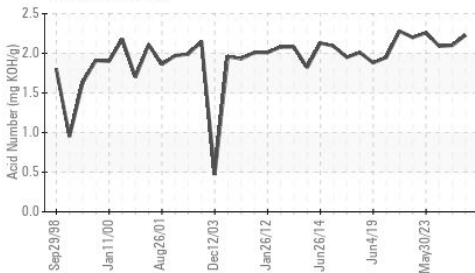
▲ Ferrous Alloys



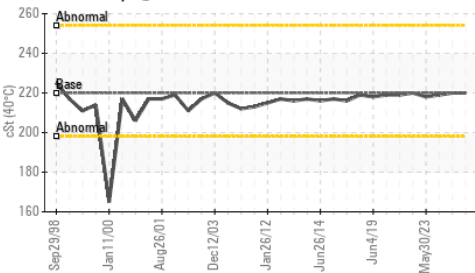
Particle Count



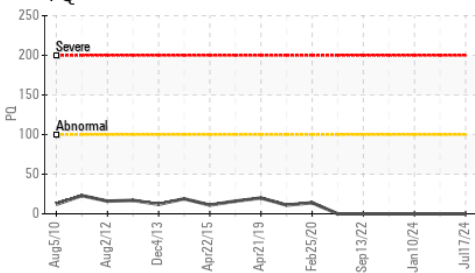
Acid Number



Viscosity @ 40°C



PQ



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		129013	132767	119328
Particles >6µm	ASTM D7647	>10240000	30153	16593	30347
Particles >14µm	ASTM D7647	>10240000	1670	816	653
Particles >21µm	ASTM D7647	>2560000	326	202	118
Particles >38µm	ASTM D7647	>640000	13	9	4
Particles >71µm	ASTM D7647	>160000	1	0	0
Oil Cleanliness	ISO 4406 (c)	>--/30/30	24/22/18	24/21/17	24/22/17

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*		2.23	2.10	2.09

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar Visual*	NONE	VLITE	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*	>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	220	220	219

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

Color



Bottom



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0968494
Lab Number : 02648516
Unique Number : 5814068
Test Package : IND 2 (Additional Tests: PQ, PrtCount, TAN Man)

STELCO - BOSC - Basic Oxygen Slab Caster
 2330 Regional Road #3, Door: BOSC8
 NANTICOKE, ON
 CA N0A 1L0
 Contact: Tom Walden
 Thomas.Walden@stelco.com
 T: (519)587-4541
 F: (519)587-7702

*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.*