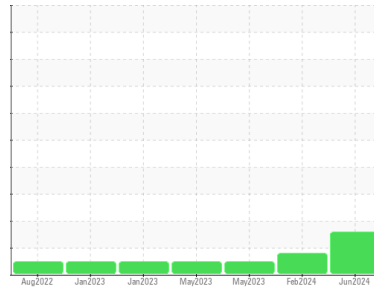




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id

C
Component
Gearbox
Fluid

SHELL OMALA 220 (--- GAL)

DIAGNOSIS

Recommendation

We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

Titanium ppm levels are marginal. All other 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		WC0782480	WC0782474	WC0782501
Sample Date	Client Info		04 Jun 2024	22 Feb 2024	29 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	MARGINAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*	>DFLT	3	3	5
Iron	ppm	ASTM D5185(m) >200	19	13	22
Chromium	ppm	ASTM D5185(m) >15	0	0	0
Nickel	ppm	ASTM D5185(m) >15	<1	0	0
Titanium	ppm	ASTM D5185(m)	▲ 19	▲ 17	0
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >25	1	<1	0
Lead	ppm	ASTM D5185(m) >100	0	0	<1
Copper	ppm	ASTM D5185(m) >200	1	1	1
Tin	ppm	ASTM D5185(m) >25	0	0	0
Antimony	ppm	ASTM D5185(m) >5	<1	0	0
Vanadium	ppm	ASTM D5185(m)	<1	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	1	0	2
Barium	ppm	ASTM D5185(m) 0.0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m)	<1	0	<1
Magnesium	ppm	ASTM D5185(m) 0	<1	<1	<1
Calcium	ppm	ASTM D5185(m) 0	6	4	2
Phosphorus	ppm	ASTM D5185(m) 215	291	280	203
Zinc	ppm	ASTM D5185(m) 0	5	3	2
Sulfur	ppm	ASTM D5185(m) 7039	9196	9075	9790
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

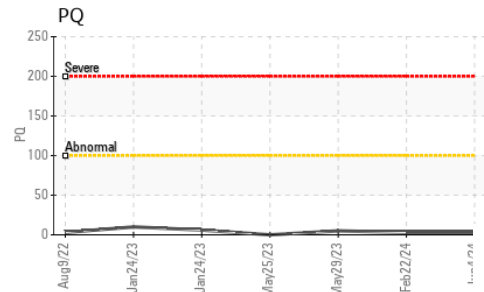
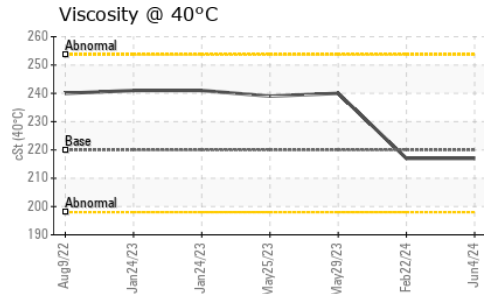
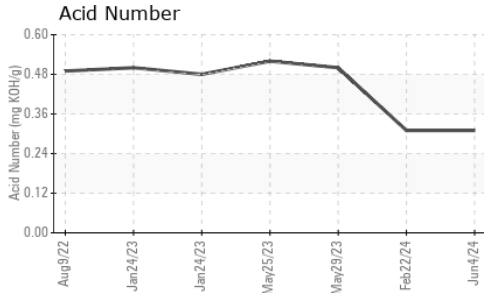
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >50	7	4	10
Sodium	ppm	ASTM D5185(m)	<1	<1	0
Potassium	ppm	ASTM D5185(m) >20	0	<1	<1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.31	0.31	0.50



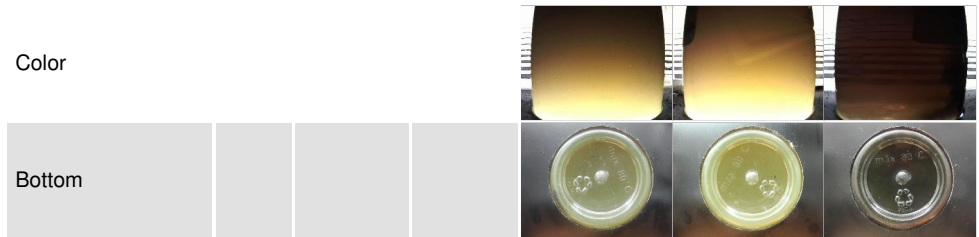
OIL ANALYSIS REPORT



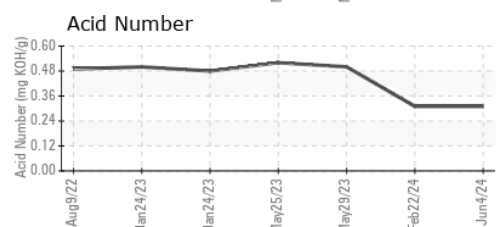
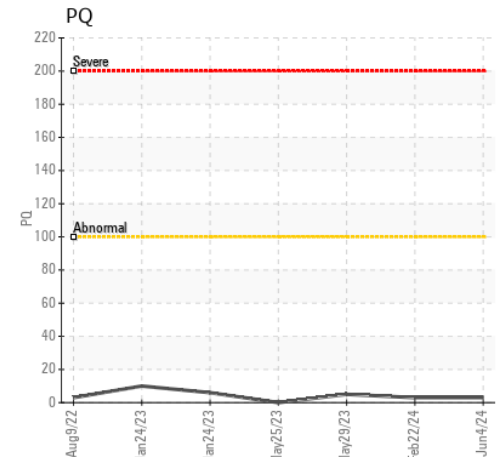
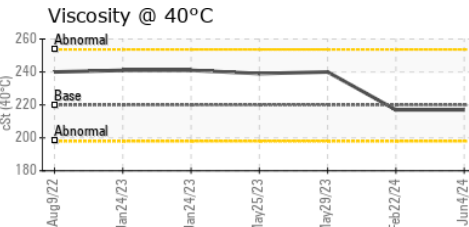
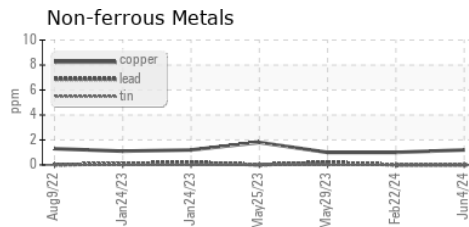
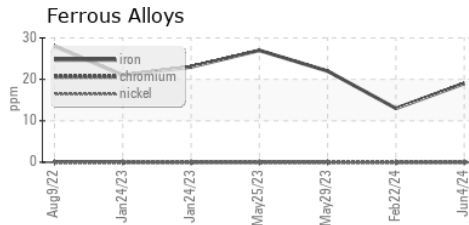
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	VLITE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	HAZY	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	220	217	240

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



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0782480
Lab Number : 02642684
Unique Number : 5800223
Test Package : IND 2 (Additional Tests: 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.