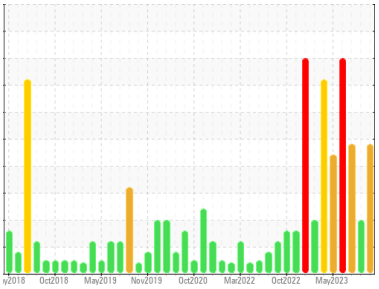
PROBLEM SUMMARY

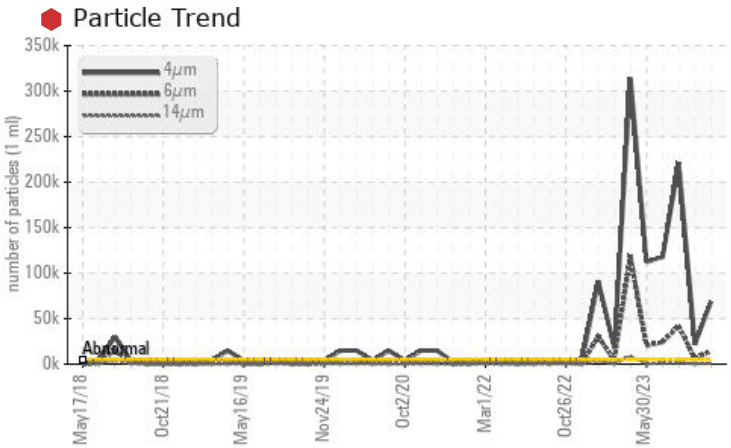
Sample Rating Trend



ISO

Area
BOF/DESULF
Machine Id
D Desulph Ladle Tilt Car Hydraulic
Component
Hydraulic System
Fluid
FORSYTHE NO FIRE WG 200R (790 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	SEVERE
Particles >4µm		ASTM D7647	>5000	**68840**	21805	221457
Particles >6µm		ASTM D7647	>1300	**14457**	6111	41683
Particles >14µm		ASTM D7647	>160	**829**	407	1284
Particles >21µm		ASTM D7647	>40	**221**	101	247
Particles >38µm		ASTM D7647	>10	**25**	8	26
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**23/21/17**	22/20/16	25/23/17

Customer Id: LEWBOSC
Sample No.: WC0871211
Lab Number: 02589795
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
Change Filter	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Dirt Access	---	---	?	We advise that you check all areas where contaminants can enter the system.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS

ISO

16 Aug 2023 Diag: Kevin Marson

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

ISO

13 Jul 2023 Diag: Kevin Marson

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

ISO

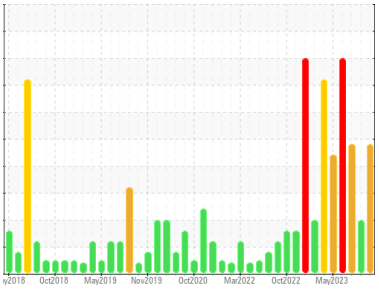
20 Jun 2023 Diag: Kevin Marson

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Confirm the source of the lubricant being utilized for top-up/fill. Resample in 30-45 days to monitor this situation. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.Component wear rates appear to be normal (unconfirmed). There is a high amount of particulates (2 to 100 microns in size) present in the oil. Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration level is acceptable for this fluid.

view report

COOLANT REPORT

Sample Rating Trend



ISO

Area
BOF/DESULF
Machine Id
D Desulph Ladle Tilt Car Hydraulic
Component
Hydraulic System
Fluid
FORSYTHE NO FIRE WG 200R (790 GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration level is acceptable for this fluid. 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		**WC0871211**	WC0850084	WC0838945
Sample Date		Client Info		**16 Oct 2023**	16 Aug 2023	13 Jul 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				**SEVERE**	ABNORMAL	SEVERE

CORROSION INHIBITORS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)		**<1**	0	<1
Phosphorus	ppm	ASTM D5185(m)		**<1**	0	0
Boron	ppm	ASTM D5185(m)		**<1**	0	<1
Molybdenum	ppm	ASTM D5185(m)		**0**	0	1

CORROSION		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	**0**	0	0
Copper	ppm	ASTM D5185(m)	>20	**0**	<1	1
Lead	ppm	ASTM D5185(m)	>20	**0**	<1	<1
Tin	ppm	ASTM D5185(m)	>20	**0**	0	0
Silver	ppm	ASTM D5185(m)		**<1**	0	0
Zinc	ppm	ASTM D5185(m)		**0**	0	0

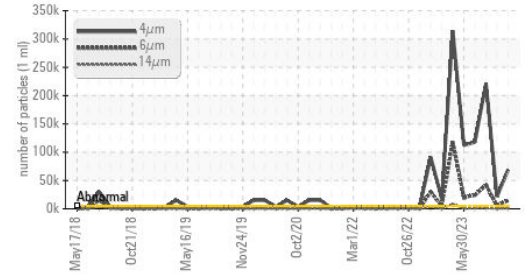
CONTAMINANTS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	**68840**	21805	221457
Particles >6µm	ASTM D7647	>1300	**14457**	6111	41683
Particles >14µm	ASTM D7647	>160	**829**	407	1284
Particles >21µm	ASTM D7647	>40	**221**	101	247
Particles >38µm	ASTM D7647	>10	**25**	8	26
Particles >71µm	ASTM D7647	>3	**4**	2	2
Oil Cleanliness	ISO 4406 (c)	>19/17/14	**23/21/17**	22/20/16	25/23/17

CARRIER SALTS		method	limit/base	current	history1	history2
Sodium	ppm	ASTM D5185(m)		**125**	192	138
Potassium	ppm	ASTM D5185(m)		**5**	8	0

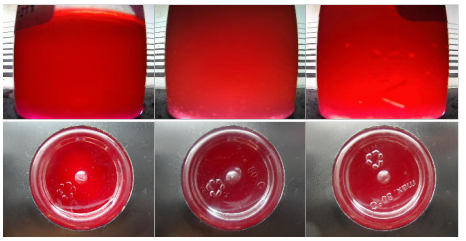
SCALE POTENTIAL		method	limit/base	current	history1	history2
Calcium	ppm	ASTM D5185(m)		**0**	2	<1
Magnesium	ppm	ASTM D5185(m)		**0**	0	1

COOLANT REPORT

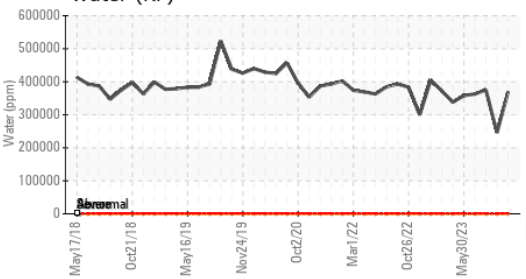
Particle Trend



VISUAL	method	limit/base	current	history1	history2
Color					
Bottom					

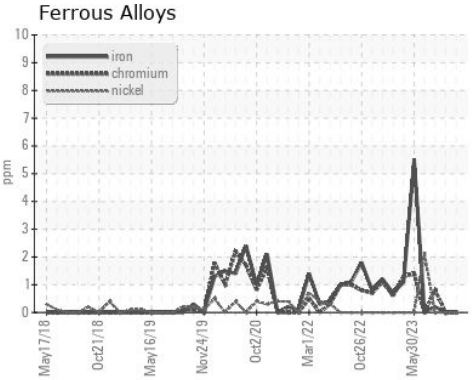


Water (KF)

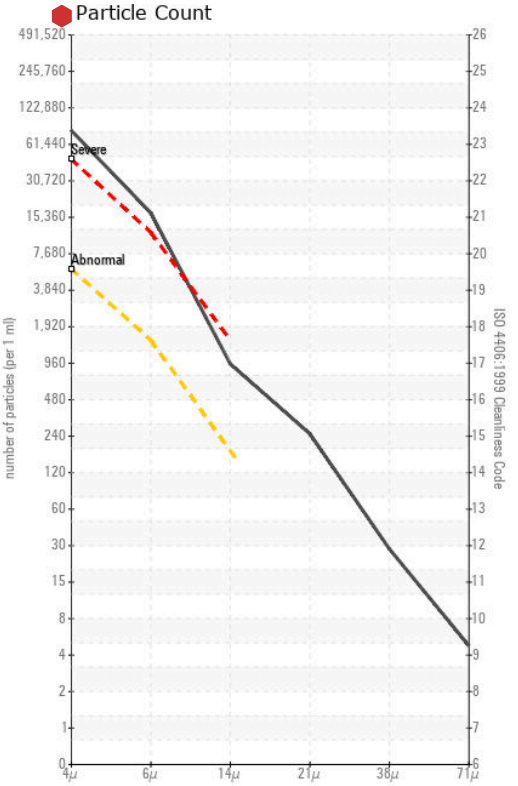


GRAPHS

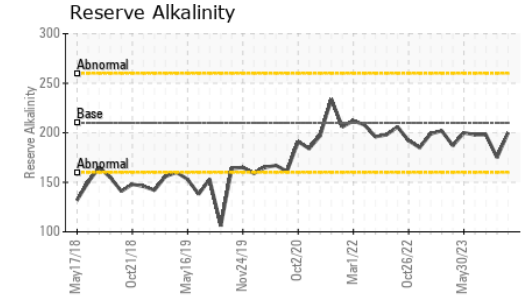
Ferrous Alloys



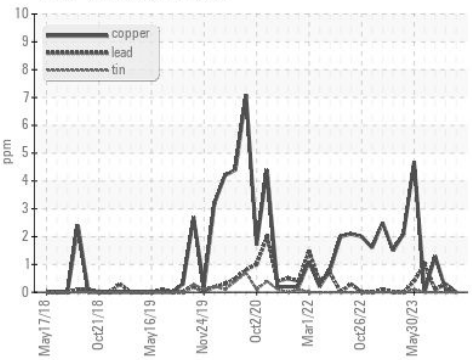
Particle Count



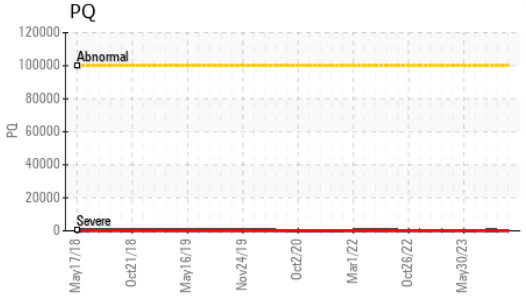
Reserve Alkalinity



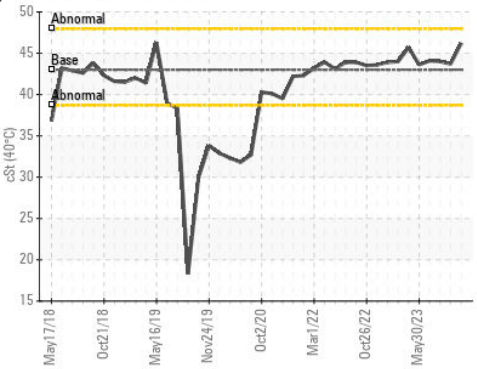
Non-ferrous Metals



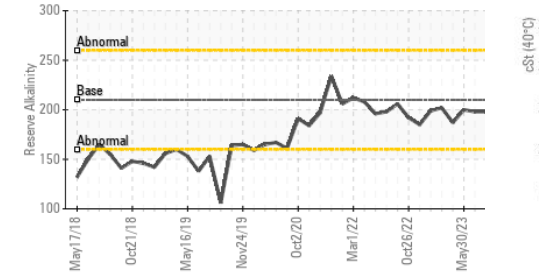
PQ



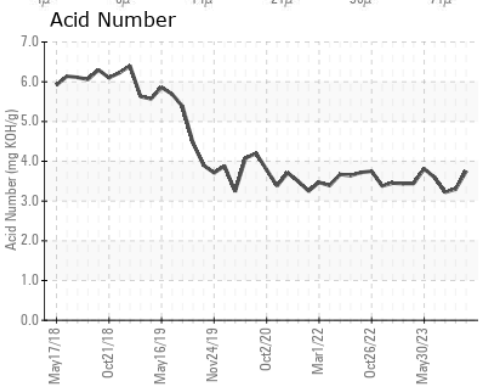
Viscosity @ 40°C



Reserve Alkalinity



Acid Number



CALA
ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **STELCO - BOSC - Basic Oxygen Slab Caster**
Sample No. : WC0871211 **Received** : 17 Oct 2023 2330 Regional Road #3, Door: BOSC8
Lab Number : 02589795 **Diagnosed** : 19 Oct 2023 NANTICOKE, ON
Unique Number : 5658861 **Diagnostician** : Kevin Marson CA N0A 1L0
Test Package : IND 2 (Additional Tests: KF, pH, PQ, ReserveAlk, TAN Man) 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.