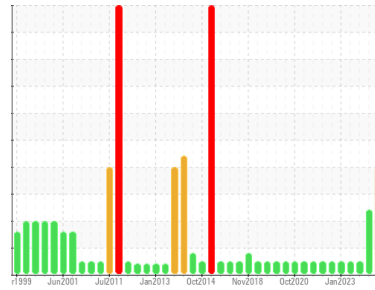




OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL



Area
PUMPHOUSE/CASTER SPRAY WATER PUMPS
 Machine Id
C - Caster Spray Water Turbine IB
 Component
Lube System
 Fluid
PETRO CANADA HYDREX AW 100 (1 GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you check for visible metal particles in the oil. We recommend that you drain the oil from the component if this has not already been done. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. We suspect that the abnormal contaminant(s) is the result of incorrect sampling technique. **DISCLAIMER:** Interpretation of results is based on the sample as received from the customer. The condition of the sample and the method of sampling cannot be verified.

Wear

Copper ppm levels are abnormal. Lead and tin ppm levels are noted. Light concentration of visible metal present. Cylinder wear is indicated. Oil cooler core leaching or motor piston wear is indicated.

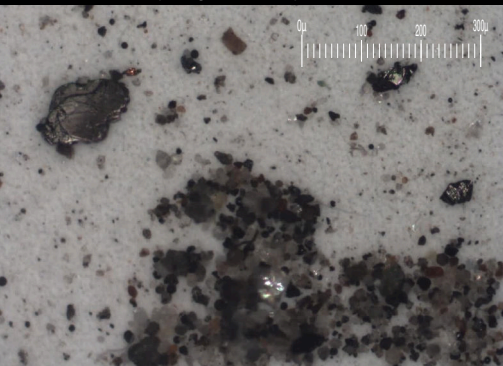
Contamination

Light concentration of visible dirt/debris present in the oil.

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.

Particle Filter (Magn: 100 x)



SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0968458	WC0898663	WC0850121
Sample Date	Client Info		17 Jul 2024	10 Jan 2024	16 Aug 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	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*	>DFLT	0	1	0
Iron	ppm	ASTM D5185(m) >20	2	3	2
Chromium	ppm	ASTM D5185(m) >20	0	0	0
Nickel	ppm	ASTM D5185(m) >20	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	<1
Aluminum	ppm	ASTM D5185(m) >20	<1	<1	<1
Lead	ppm	ASTM D5185(m) >20	5	3	<1
Copper	ppm	ASTM D5185(m) >20	32	13	4
Tin	ppm	ASTM D5185(m) >20	7	9	8
Antimony	ppm	ASTM D5185(m)	<1	0	0
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) 0	0	0	<1
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m) 0	0	0	0
Magnesium	ppm	ASTM D5185(m) 0	<1	<1	<1
Calcium	ppm	ASTM D5185(m) 50	45	48	51
Phosphorus	ppm	ASTM D5185(m) 330	322	319	322
Zinc	ppm	ASTM D5185(m) 430	388	405	397
Sulfur	ppm	ASTM D5185(m) 760	2416	2549	2381
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

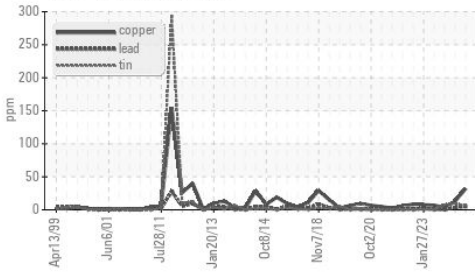
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	3	3	3
Sodium	ppm	ASTM D5185(m)	<1	<1	<1
Potassium	ppm	ASTM D5185(m) >20	0	<1	0

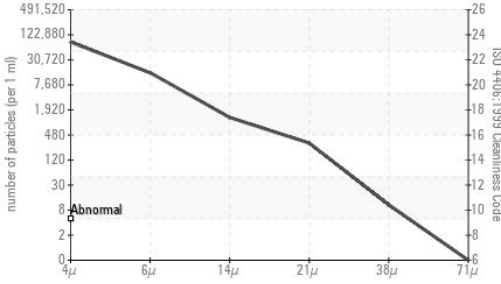


OIL ANALYSIS REPORT

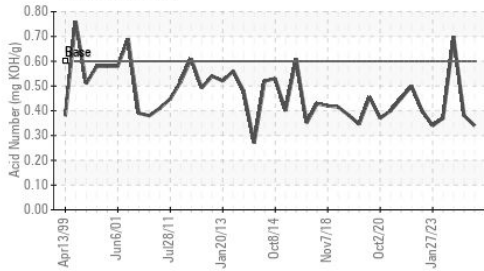
▲ Non-ferrous Metals



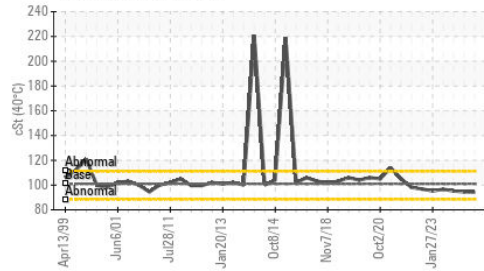
Particle Count



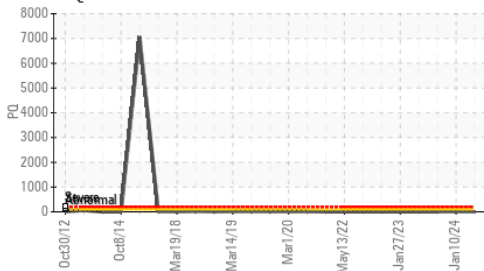
Acid Number



Viscosity @ 40°C



PQ



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		70850	102626	60947
Particles >6µm	ASTM D7647	>10240000	13060	17767	5540
Particles >14µm	ASTM D7647	>10240000	1109	503	315
Particles >21µm	ASTM D7647	>2560000	270	51	82
Particles >38µm	ASTM D7647	>640000	9	1	1
Particles >71µm	ASTM D7647	>160000	0	0	0
Oil Cleanliness	ISO 4406 (c)	>--/30/30	23/21/17	24/21/16	23/20/15

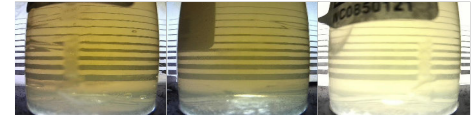
FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*	0.60	0.34	0.38	0.70

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	VLITE
Debris	scalar Visual*	NONE	▲ LIGHT	NONE	VLITE
Sand/Dirt	scalar Visual*	NONE	NONE	NONE	NONE
Appearance	scalar Visual*	NORML	NORML	▲ WGOIL	NORML
Odor	scalar Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar Visual*	>1	NEG	.2%	NEG
Free Water	scalar Visual*		NEG	▲ 1%	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D7279(m)	101	94.2	94.5	95.2

SAMPLE IMAGES

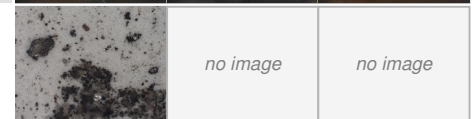
Color



Bottom



PrtFilter



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0968458
Lab Number : 02648435
Unique Number : 5813987
Test Package : IND 2 (Additional Tests: Bottom, BottomAnalysis, FILTERPATCH, PQ, PrtFilter)

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.