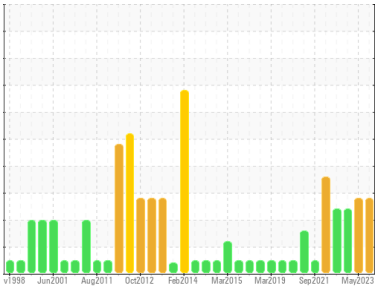
PROBLEM SUMMARY

Area
PUMPHOUSE/VACUUM PRIMING
Machine Id
C - Vacuum Priming Turbine IB
Component
Gear Lube System
Fluid
PETRO CANADA HYDREX AW 100 (4 LTR)

Sample Rating Trend



WATER

COMPONENT CONDITION SUMMARY

No relevant graphs to display

RECOMMENDATION

Check seals and/or filters for points of contaminant entry. We advise that you check all areas where contaminants can enter the system. 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. We advise that you follow the water drain-off procedure for 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.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	SEVERE	ABNORMAL
Debris	scalar	Visual*	NONE	▲ **VLITE**	NONE	NONE
Appearance	scalar	Visual*	NORML	▲ **WGOIL**	LAYRD	▲ WGOIL
Free Water	scalar	Visual*		▲ **1%**	▲ >10%	▲ 1%

Customer Id: LEWBOSC
Sample No.: WC0850134
Lab Number: 02576252
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
Water Drain-off	---	---	?	We advise that you follow the water drain-off procedure for this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Alert	---	---	?	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.
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.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS

31 May 2023 Diag: Bill Quesnel

WATER

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. We advise that you follow the water drain-off procedure for this component. We recommend that you change the oil. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a high concentration of water present in the oil. Free water present. The white residue present in the sample is oil additive precipitate. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

view report

27 Jan 2023 Diag: Kevin Marson

WATER

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. 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. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.All component wear rates are normal. Free water present. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

13 Dec 2022 Diag: Kevin Marson

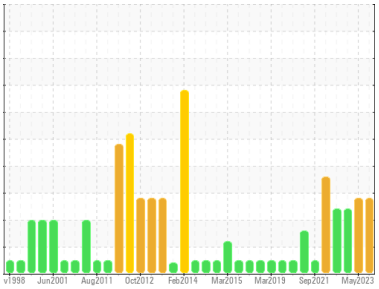
WATER

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. 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. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.All component wear rates are normal. Excessive free water present. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

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PUMPHOUSE/VACUUM PRIMING
Machine Id
C - Vacuum Priming Turbine IB
Component
Gear Lube System
Fluid
PETRO CANADA HYDREX AW 100 (4 LTR)

DIAGNOSIS

Recommendation

Check seals and/or filters for points of contaminant entry. We advise that you check all areas where contaminants can enter the system. 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. We advise that you follow the water drain-off procedure for 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

All component wear rates are normal.

Contamination

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

Fluid Condition

The AN 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		**WC0850134**	WC0824461	WC0785703
Sample Date		Client Info		**16 Aug 2023**	31 May 2023	27 Jan 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**	SEVERE	ABNORMAL

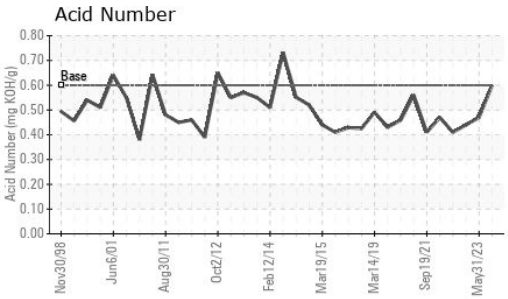
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*	>DFLT	**0**	0	0
Iron	ppm	ASTM D5185(m)	>150	**<1**	<1	<1
Chromium	ppm	ASTM D5185(m)	>10	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>10	**<1**	0	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	0	<1
Aluminum	ppm	ASTM D5185(m)	>25	**<1**	0	0
Lead	ppm	ASTM D5185(m)	>100	**<1**	<1	2
Copper	ppm	ASTM D5185(m)	>50	**<1**	<1	1
Tin	ppm	ASTM D5185(m)	>10	**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	<1

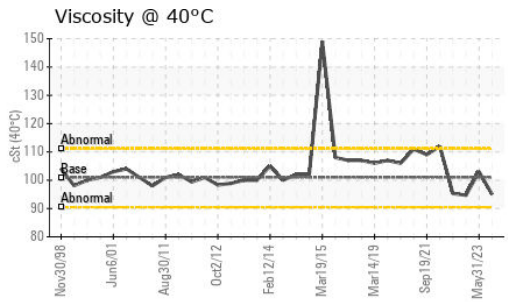
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**<1**	<1	<1
Barium	ppm	ASTM D5185(m)	0	**1**	2	2
Molybdenum	ppm	ASTM D5185(m)	0	**0**	0	0
Manganese	ppm	ASTM D5185(m)	0	**0**	0	0
Magnesium	ppm	ASTM D5185(m)	0	**<1**	0	0
Calcium	ppm	ASTM D5185(m)	50	**38**	31	45
Phosphorus	ppm	ASTM D5185(m)	330	**343**	340	324
Zinc	ppm	ASTM D5185(m)	430	**399**	347	386
Sulfur	ppm	ASTM D5185(m)	760	**2558**	3175	2260
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

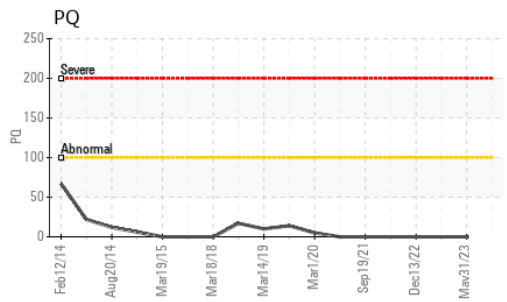
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	**3**	2	2
Sodium	ppm	ASTM D5185(m)		**0**	0	<1
Potassium	ppm	ASTM D5185(m)	>20	**<1**	<1	<1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	**0.60**	0.47	0.44

OIL ANALYSIS REPORT

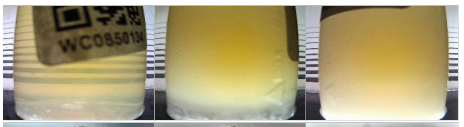




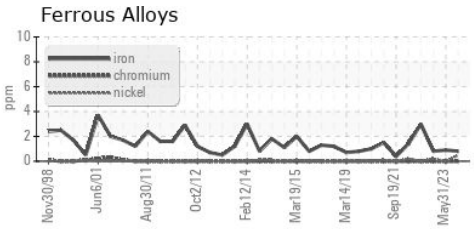


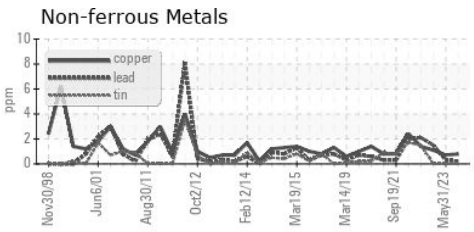
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**VLITE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	▲ MODER	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	▲ **VLITE**	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Appearance	scalar	Visual*	NORML	▲ **WGOIL**	LAYRD	▲ WGOIL
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>5	**.2%**	⬢ 1%	.5%
Free Water	scalar	Visual*		▲ **1%**	▲ >10%	▲ 1%

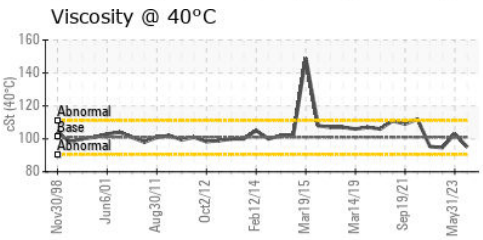
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	101	**95.0**	103	94.7

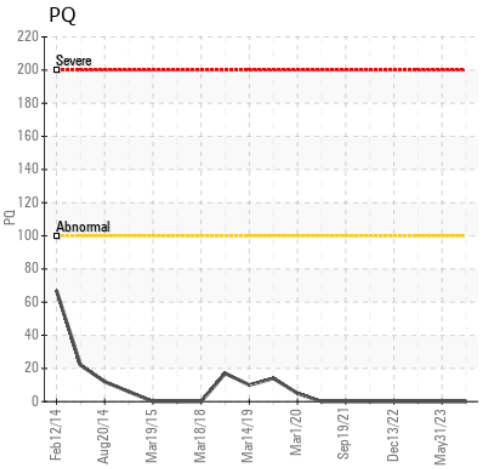
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

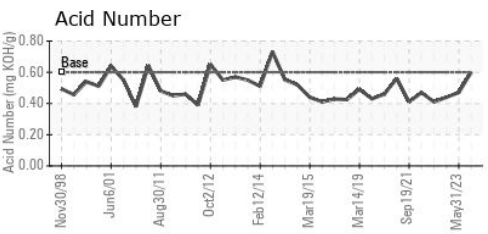
GRAPHS











ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **STELCO - BOSC - Basic Oxygen Slab Caster**
Sample No. : WC0850134 **Received** : 16 Aug 2023 2330 Regional Road #3, Door: BOSC8
Lab Number : 02576252 **Diagnosed** : 17 Aug 2023 NANTICOKE, ON
Unique Number : 5629312 **Diagnostician** : Kevin Marson CA N0A 1L0
Test Package : IND 2 (Additional Tests: TAN Man) Contact: Tom Walden

To discuss this sample report, contact Customer Service at 1-800-268-2131. Thomas.Walden@stelco.com
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (519)587-4541
Validity of results and interpretation are based on the sample and information as supplied. F: (519)587-7702