



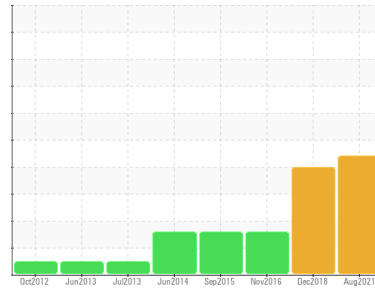
PROBLEM SUMMARY

Sample Rating Trend

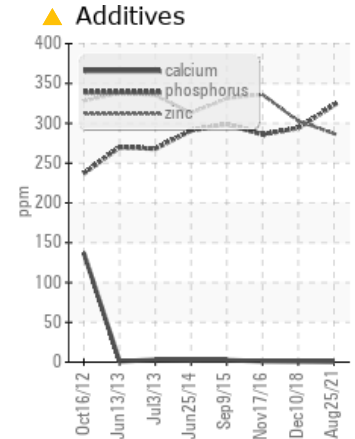
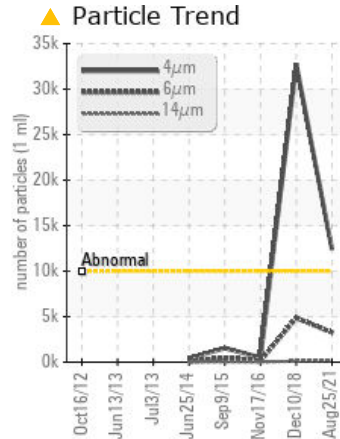
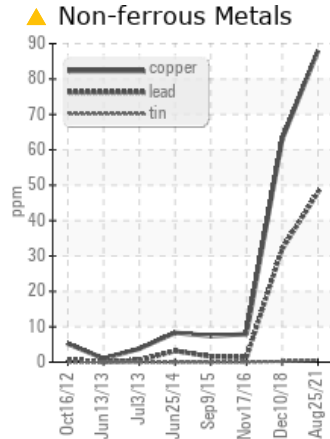
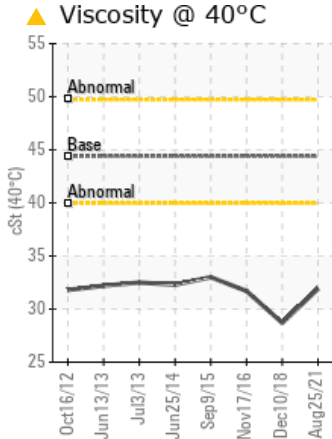
WEAR



Machine Id
SLK - GENERATOR LOWER GUIDE BEARING (S/N 361927)
 Component
Bearing
 Fluid
PETRO CANADA TURBOFLO R&O 46 (170 LTR)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. The fluid was specified as PETRO CANADA TURBOFLO R&O 46, however, a fluid match indicates that this fluid is ISO 32 AW Hydraulic Oil. Please confirm the oil type and grade on your next sample.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Lead	ppm	ASTM D5185(m)	>20	▲ 48	▲ 32	1
Copper	ppm	ASTM D5185(m)	>20	▲ 88	▲ 63	8
Phosphorus	ppm	ASTM D5185(m)	3	▲ 323	▲ 294	▲ 286
Zinc	ppm	ASTM D5185(m)	0	▲ 287	▲ 303	▲ 336
Sulfur	ppm	ASTM D5185(m)		▲ 3487	▲ 3233	▲ 3683
Particles >4µm		ASTM D7647	>10000	▲ 12418	▲ 32743	504
Particles >6µm		ASTM D7647	>2500	▲ 3256	▲ 4864	140
Particles >14µm		ASTM D7647	>160	▲ 185	105	11
Oil Cleanliness		ISO 4406 (c)	>20/18/14	▲ 21/19/15	▲ 22/19/14	16/14/11
Visc @ 40°C	cSt	ASTM D7279(m)	44.4	▲ 31.9	▲ 28.7	▲ 31.7

Customer Id: NEWMIL
 Sample No.: WC118602
 Lab Number: 02452906
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
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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 recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Alert	---	---	?	The fluid was specified as PETRO CANADA TURBOFLO R&O 46, however, a fluid match indicates that this fluid is ISO 32 AW Hydraulic Oil. Please confirm the oil type and grade on your next sample.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.

HISTORICAL DIAGNOSIS

10 Dec 2018 Diag: Bill Quesnel

WEAR



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. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. The fluid was specified as PETRO CANADA TURBOFLO R&O 46, however, a fluid match indicates that this fluid is ISO 32 AW Hydraulic Oil. Please confirm the oil type and grade on your next sample. Copper and lead ppm levels are abnormal. Bearing wear is indicated. Particles >4µm are abnormally high. Particles >6µm are notably high. Viscosity of sample indicates oil is within ISO 32 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report



17 Nov 2016 Diag: Kevin Marson

VISCOSITY



Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as PETRO CANADA TURBOFLO R&O 46, however, a fluid match indicates that this fluid is ISO 32 AW Hydraulic Oil. Please confirm the oil type and grade on your next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Viscosity of sample indicates oil is within ISO 32 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



09 Sep 2015 Diag: Bill Quesnel

VISCOSITY



Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as PETRO CANADA TURBOFLO R&O 46, however, a fluid match indicates that this fluid is ISO 32 AW Hydraulic Oil. Please confirm the oil type and grade on your next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Viscosity of sample indicates oil is within ISO 32 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

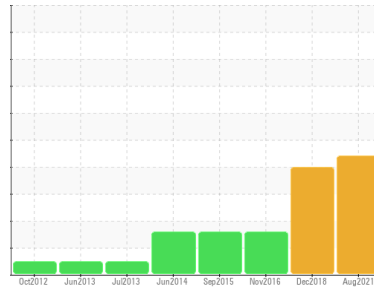
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
SLK - GENERATOR LOWER GUIDE BEARING (S/N 361927)
 Component
Bearing
 Fluid
PETRO CANADA TURBOFLO R&O 46 (170 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. The fluid was specified as PETRO CANADA TURBOFLO R&O 46, however, a fluid match indicates that this fluid is ISO 32 AW Hydraulic Oil. Please confirm the oil type and grade on your next sample.

Wear

Copper and lead ppm levels are abnormal. Bearing wear is indicated.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

Fluid Condition

Viscosity of sample indicates oil is within ISO 32 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. 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		WC118602	WC980105	WC965170
Sample Date	Client Info		25 Aug 2021	10 Dec 2018	17 Nov 2016
Machine Age	Client Info		0	0	0
Oil Age	Client Info		0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		0	13	5
Iron	ppm ASTM D5185(m)	>20	<1	<1	<1
Chromium	ppm ASTM D5185(m)	>20	0	0	0
Nickel	ppm ASTM D5185(m)	>20	<1	0	0
Titanium	ppm ASTM D5185(m)		0	0	0
Silver	ppm ASTM D5185(m)		<1	0	<1
Aluminum	ppm ASTM D5185(m)	>20	0	<1	0
Lead	ppm ASTM D5185(m)	>20	▲ 48	▲ 32	1
Copper	ppm ASTM D5185(m)	>20	▲ 88	▲ 63	8
Tin	ppm ASTM D5185(m)	>20	<1	<1	0
Antimony	ppm ASTM D5185(m)		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	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m)		<1	0	0
Barium	ppm ASTM D5185(m)		0	0	0
Molybdenum	ppm ASTM D5185(m)		0	0	0
Manganese	ppm ASTM D5185(m)		0	<1	<1
Magnesium	ppm ASTM D5185(m)		0	0	0
Calcium	ppm ASTM D5185(m)	0	<1	<1	1
Phosphorus	ppm ASTM D5185(m)	3	▲ 323	▲ 294	▲ 286
Zinc	ppm ASTM D5185(m)	0	▲ 287	▲ 303	▲ 336
Sulfur	ppm ASTM D5185(m)		▲ 3487	▲ 3233	▲ 3683
Lithium	ppm ASTM D5185(m)		<1	0	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m)	>15	1	1	<1
Sodium	ppm ASTM D5185(m)		0	0	0
Potassium	ppm ASTM D5185(m)	>20	<1	0	0
Water	% ASTM D6304*	>2	0.002	---	---
ppm Water	ppm ASTM D6304*		19.6	---	---

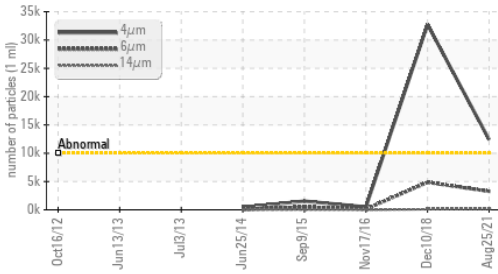
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ 12418	▲ 32743	504
Particles >6µm	ASTM D7647	>2500	▲ 3256	▲ 4864	140
Particles >14µm	ASTM D7647	>160	▲ 185	105	11
Particles >21µm	ASTM D7647	>40	33	30	3
Particles >38µm	ASTM D7647	>10	1	3	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/14	▲ 21/19/15	▲ 22/19/14	16/14/11

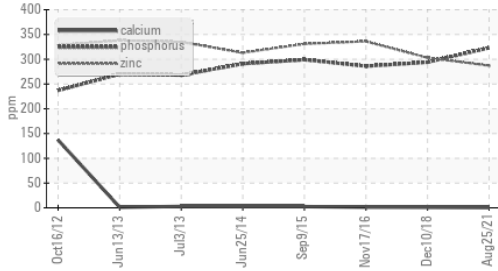


OIL ANALYSIS REPORT

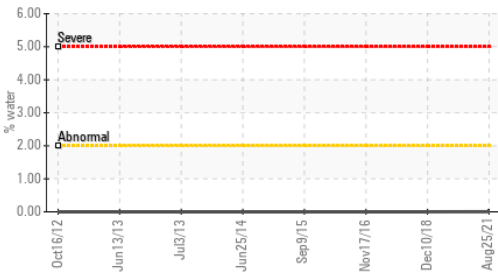
Particle Trend



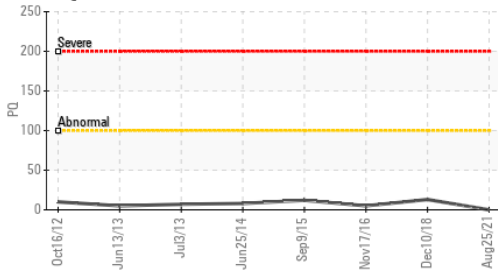
Additives



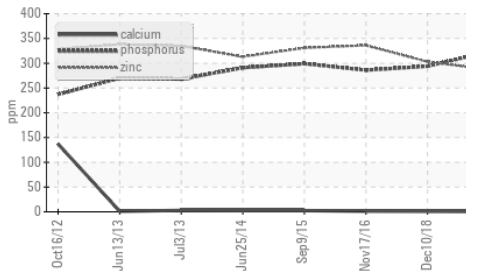
Water



PQ



Additives

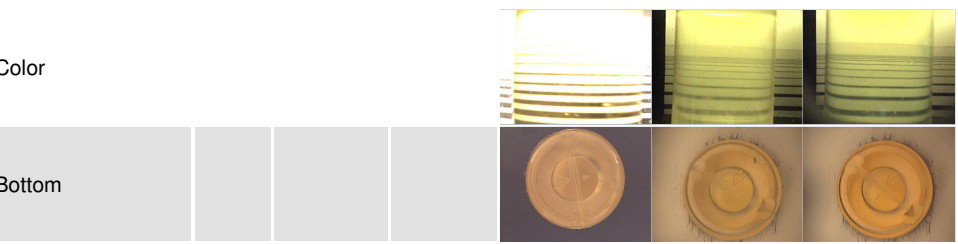


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.12	0.45	0.521	0.507

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

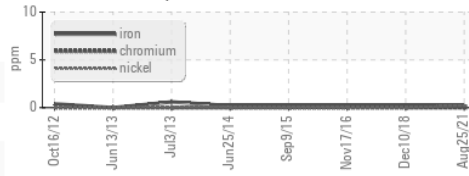
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	44.4	▲ 31.9	▲ 28.7	▲ 31.7

SAMPLE IMAGES

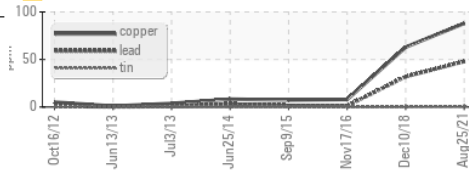


GRAPHS

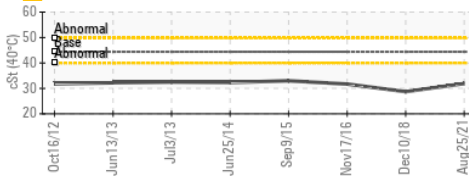
Ferrous Alloys



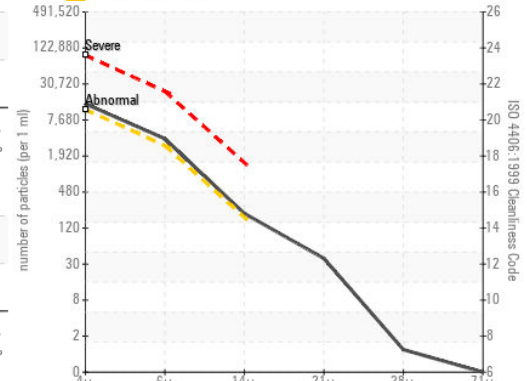
Non-ferrous Metals



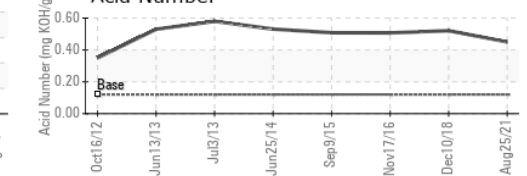
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 NEWFOUNDLAND & LABRADOR HYDRO
Sample No. : WC118602 **Received** : 29 Oct 2021 BAY D'ESPOIR WHSE., 1 CAMP BOGGY RD., PO BOX 100
Lab Number : 02452906 **Diagnosed** : 02 Nov 2021 MILLTOWN, BAY D'ESPOIR, NL
Unique Number : 5304444 **Diagnostician** : Kevin Marson CA A0H 1W0
Test Package : IND 2 (Additional Tests: KF, PrtCount, TAN Man)

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.

Contact: Matthew Lambert
 matthewlambert@nlh.nl.ca
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 F: (709)882-3161