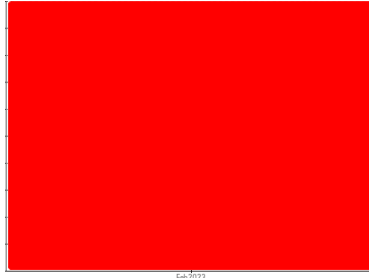


PROBLEM SUMMARY

Sample Rating Trend

WEAR



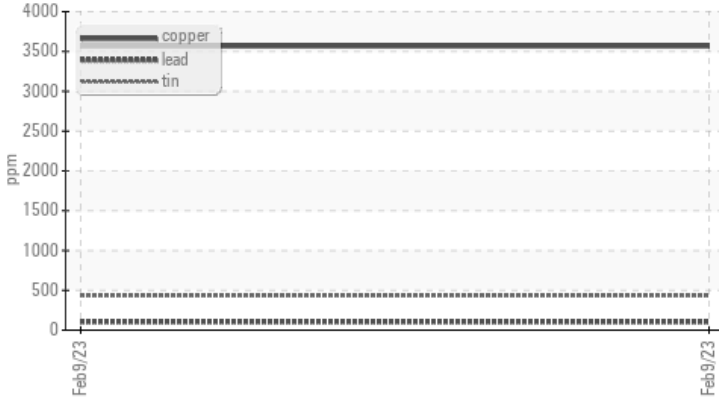
Machine Id
SDC GEARBOX

Component
Gearbox

Fluid
PETRO CANADA ENDURATEX EP 460 (--- GAL)

COMPONENT CONDITION SUMMARY

Non-ferrous Metals



RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	---	---
Lead	ppm	ASTM D5185(m)	>100	▲ 104	---	---
Copper	ppm	ASTM D5185(m)	>200	● 3566	---	---
Tin	ppm	ASTM D5185(m)	>25	● 433	---	---

Customer Id: ARMORA
Sample No.: PC0069599
Lab Number: 02541585
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

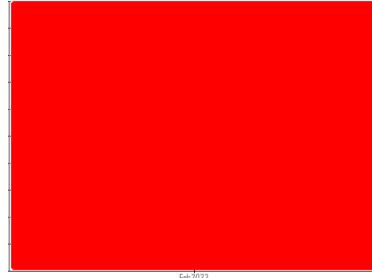
Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

HISTORICAL DIAGNOSIS

Machine Id
SDC GEARBOX

Component
Gearbox

Fluid
PETRO CANADA ENDURATEX EP 460 (--- GAL)



DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. 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

Copper and tin ppm levels are severe. Lead ppm levels are abnormal. Bearing and/or bushing wear is indicated.

Contamination

There is no indication of any contamination 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.

SAMPLE INFORMATION method limit/base current history1 history2

Sample Number	Client Info		PC0069599	---	---
Sample Date	Client Info		09 Feb 2023	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed		Client Info	N/A	---	---
Sample Status			SEVERE	---	---

CONTAMINATION method limit/base current history1 history2

Water	WC Method	>0.2	NEG	---	---
-------	-----------	------	------------	-----	-----

WEAR METALS method limit/base current history1 history2

PQ		ASTM D8184*		5	---	---
Iron	ppm	ASTM D5185(m)	>200	38	---	---
Chromium	ppm	ASTM D5185(m)	>15	0	---	---
Nickel	ppm	ASTM D5185(m)	>15	4	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		<1	---	---
Aluminum	ppm	ASTM D5185(m)	>25	<1	---	---
Lead	ppm	ASTM D5185(m)	>100	104	---	---
Copper	ppm	ASTM D5185(m)	>200	3566	---	---
Tin	ppm	ASTM D5185(m)	>25	433	---	---
Antimony	ppm	ASTM D5185(m)	>5	<1	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
Beryllium	ppm	ASTM D5185(m)		0	---	---
Cadmium	ppm	ASTM D5185(m)		0	---	---

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185(m)	55	46	---	---
Barium	ppm	ASTM D5185(m)	0	0	---	---
Molybdenum	ppm	ASTM D5185(m)	0	0	---	---
Manganese	ppm	ASTM D5185(m)	0	<1	---	---
Magnesium	ppm	ASTM D5185(m)	2	2	---	---
Calcium	ppm	ASTM D5185(m)	6	2	---	---
Phosphorus	ppm	ASTM D5185(m)	240	291	---	---
Zinc	ppm	ASTM D5185(m)	3	6	---	---
Sulfur	ppm	ASTM D5185(m)	10310	5505	---	---
Lithium	ppm	ASTM D5185(m)		<1	---	---

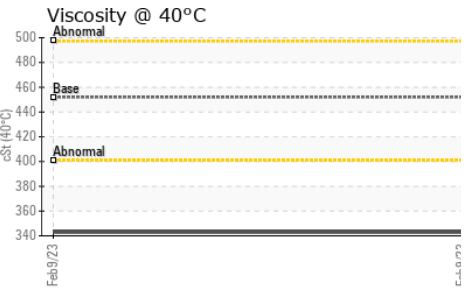
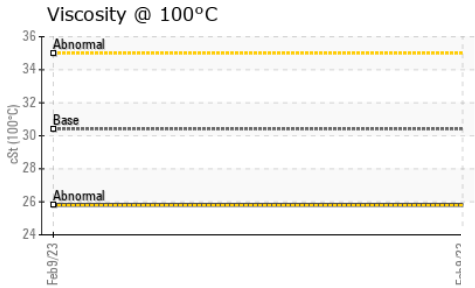
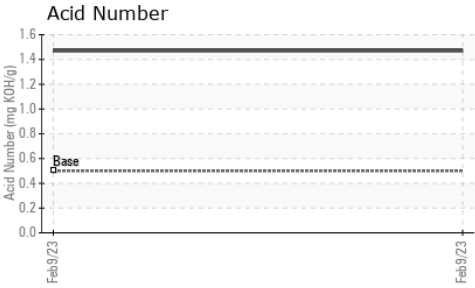
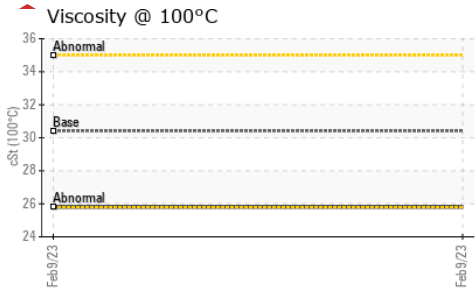
CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185(m)	>50	10	---	---
Sodium	ppm	ASTM D5185(m)		<1	---	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---	---

FLUID DEGRADATION method limit/base current history1 history2

Acid Number (AN)	mg KOH/g	ASTM D974*	0.5	1.47	---	---
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OIL ANALYSIS REPORT



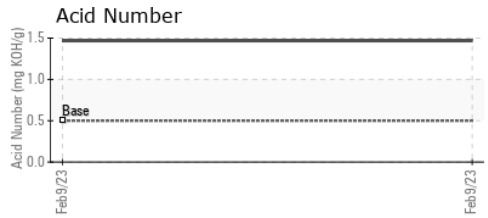
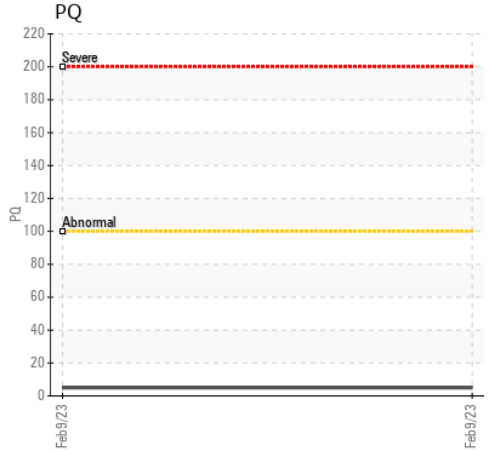
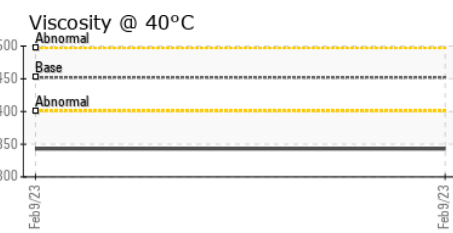
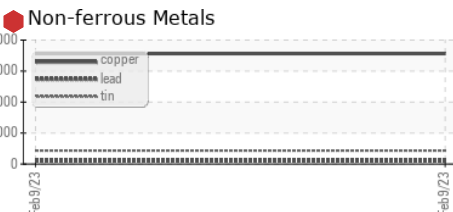
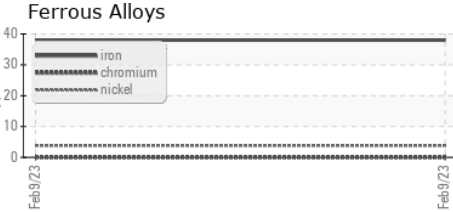
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	452	343	---
Visc @ 100°C	cSt	ASTM D7279(m)	30.41	25.8	---
Viscosity Index (VI)	Scale	ASTM D2270*	97	98	---

SAMPLE IMAGES

	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0069599 **Received** : 24 Feb 2023
Lab Number : 02541585 **Tested** : 27 Feb 2023
Unique Number : 5538590 **Diagnosed** : 28 Feb 2023 - Kevin Marson
Test Package : IND 2 (Additional Tests: KV100, TAN Man, VI)

ARMTEC
 33 CENTENNIAL RD
 ORANGEVILLE, ON
 CA L9W 1R1
 Contact: Scott Middlehurst
 scott.middlehurst@armtec.com

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.

T:
F: