

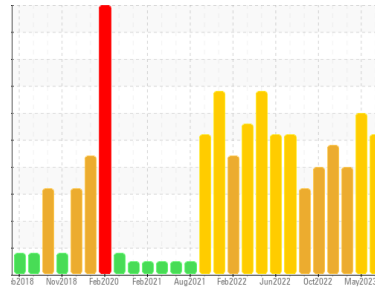


PROBLEM SUMMARY

Area
NORTH KETTLE ROOM
 Machine Id
B26487 - KETTLE 2

Component
Gearbox
 Fluid
PETRO CANADA ENDURATEX SYNTHETIC EP 220 (--- GAL)

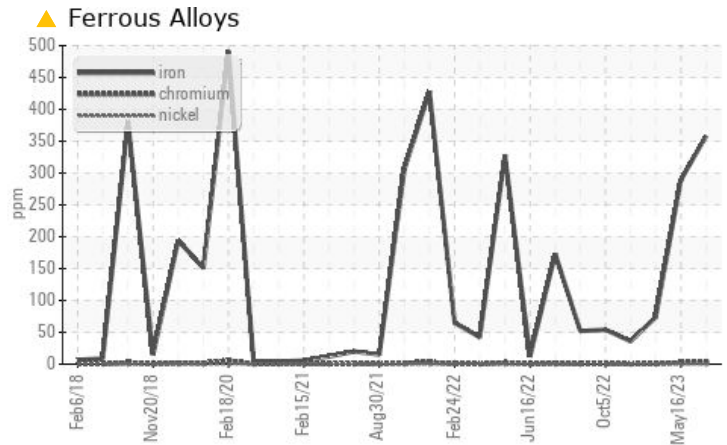
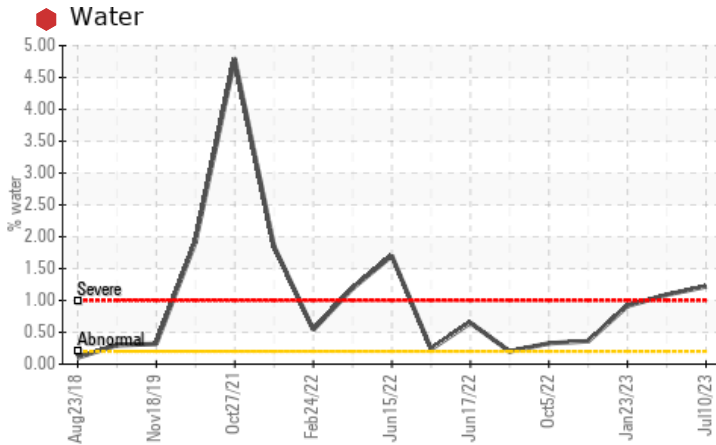
Sample Rating Trend



WATER



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>200	▲ 358	▲ 289	74
Water	%	ASTM D6304	>0.2	● 1.22	● 1.09	▲ 0.913
ppm Water	ppm	ASTM D6304	>2000	● 12200	● 10900	▲ 9130
Debris	scalar	*Visual	NONE	▲ MODER	▲ HEAVY	LIGHT
Appearance	scalar	*Visual	NORML	▲ HAZY	▲ MILKY	▲ HAZY
Emulsified Water	scalar	*Visual	>0.2	● 0.2%	● 0.2%	0.2%

Customer Id: ROCROCUS
 Sample No.: WC0820550
 Lab Number: 05902269
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@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, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

16 May 2023 Diag: Don Baldrige

WATER



We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample. Gear wear is indicated. High concentration of visible dirt/debris present in the oil. There is a high amount of visible silt present in the sample. There is a high concentration of water present in the oil. The AN level is acceptable for this fluid.

view report



23 Jan 2023 Diag: Jonathan Hester

WATER



We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component, 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. Appearance is hazy. Free water present. There is a high concentration of water present in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid.

view report



05 Dec 2022 Diag: Don Baldrige

WATER



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. All component wear rates are normal. There is a moderate amount of particulates present in the oil. There is a light concentration of water present in the oil. Excessive free water present. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

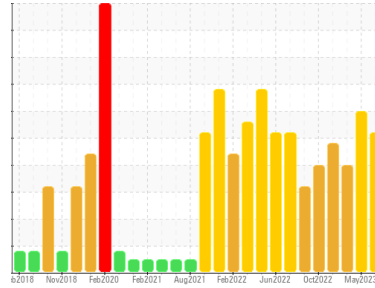
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Area
NORTH KETTLE ROOM
 Machine Id
B26487 - KETTLE 2

Component
Gearbox
 Fluid
PETRO CANADA ENDURATEX SYNTHETIC EP 220 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

Gear wear is indicated.

Contamination

Moderate concentration of visible dirt/debris present in the oil. There is a high concentration of water present in the oil.

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0820550	WC0799722	WC0775046
Sample Date	Client Info		10 Jul 2023	16 May 2023	23 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			SEVERE	SEVERE	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	▲ 358	▲ 289	74
Chromium	ppm	ASTM D5185m >10	3	3	<1
Nickel	ppm	ASTM D5185m >10	<1	<1	0
Titanium	ppm	ASTM D5185m	0	<1	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	2	<1	0
Lead	ppm	ASTM D5185m >50	0	0	0
Copper	ppm	ASTM D5185m >200	0	<1	0
Tin	ppm	ASTM D5185m >10	0	<1	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 33	0	<1	0
Barium	ppm	ASTM D5185m 5	0	0	0
Molybdenum	ppm	ASTM D5185m	0	<1	0
Manganese	ppm	ASTM D5185m	2	2	<1
Magnesium	ppm	ASTM D5185m 5	3	11	<1
Calcium	ppm	ASTM D5185m 5	8	7	1
Phosphorus	ppm	ASTM D5185m 437	105	99	40
Zinc	ppm	ASTM D5185m 5	0	8	0
Sulfur	ppm	ASTM D5185m 5000	764	689	701

CONTAMINANTS

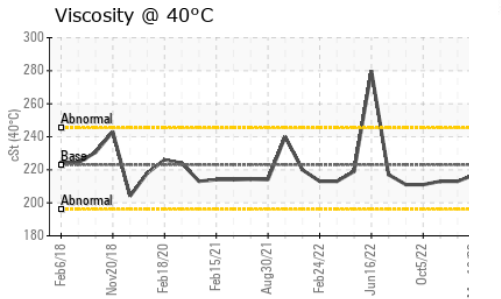
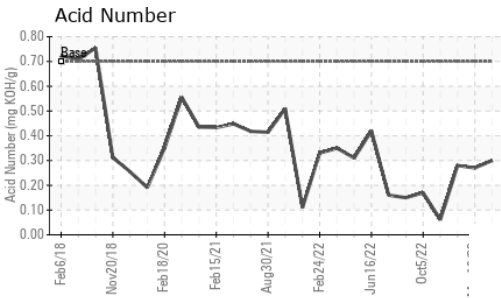
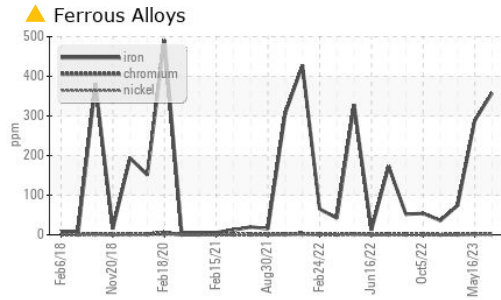
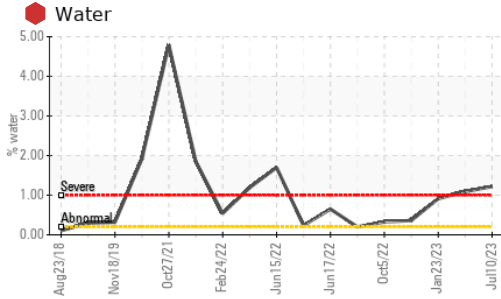
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Silicon	ppm	ASTM D5185m >50	6	4	4
Sodium	ppm	ASTM D5185m	4	4	0
Potassium	ppm	ASTM D5185m >20	2	2	1
Water	%	ASTM D6304 >0.2	● 1.22	● 1.09	▲ 0.913
ppm Water	ppm	ASTM D6304 >2000	● 12200	● 10900	▲ 9130

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	---	---	1070
Particles >6µm	ASTM D7647	>5000	---	---	583
Particles >14µm	ASTM D7647	>640	---	---	99
Particles >21µm	ASTM D7647	>160	---	---	33
Particles >38µm	ASTM D7647	>40	---	---	5
Particles >71µm	ASTM D7647	>10	---	---	1
Oil Cleanliness	ISO 4406 (c)	>21/19/16	---	---	17/16/14

FLUID DEGRADATION

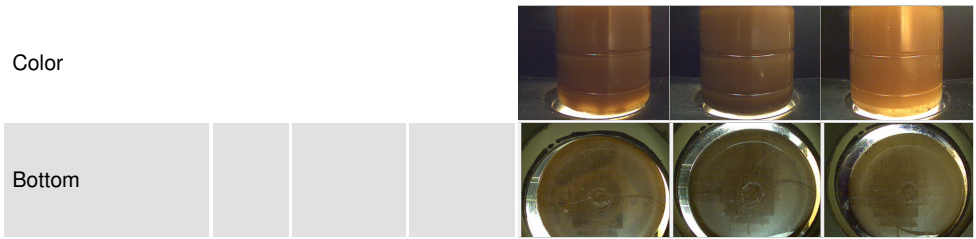
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.7	0.30	0.27	0.28



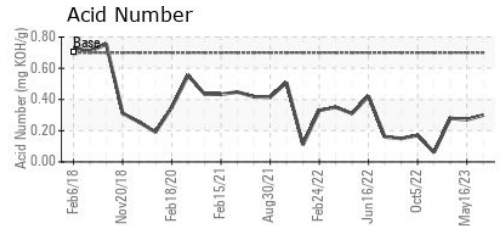
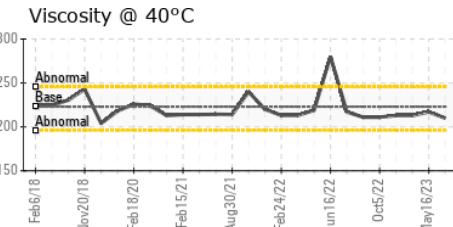
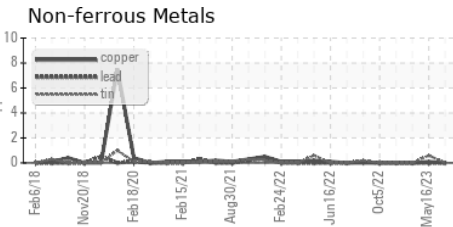
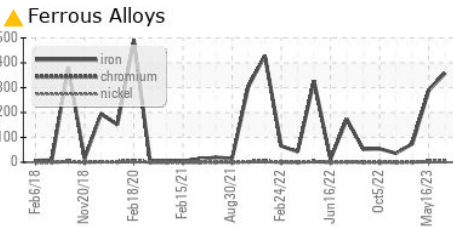
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	▲ HEAVY	NONE
Debris	scalar	*Visual	▲ MODER	▲ HEAVY	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	▲ HAZY	▲ MILKY	▲ HAZY
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	● 0.2%	0.2%
Free Water	scalar	*Visual	NEG	NEG	▲ 1.0

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	223	210	217

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0820550 **Received** : 19 Jul 2023
Lab Number : 05902269 **Diagnosed** : 21 Jul 2023
Unique Number : 10563625 **Diagnostician** : Don Baldrige

Rochelle Foods - PRE
 1001 South Main, P.O. Box 45
 Rochelle, IL
 US 61068
 Contact: JAMES ROBINSON III
 jrobinson3@hormel.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

** - Denotes test methods that are outside of the ISO 17025 scope of accreditation.*

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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