



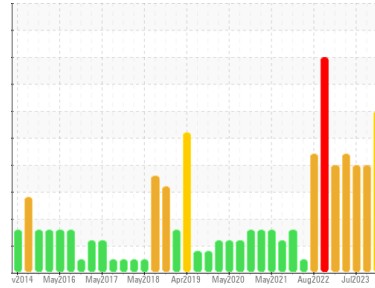
PROBLEM SUMMARY

Sample Rating Trend

ISO

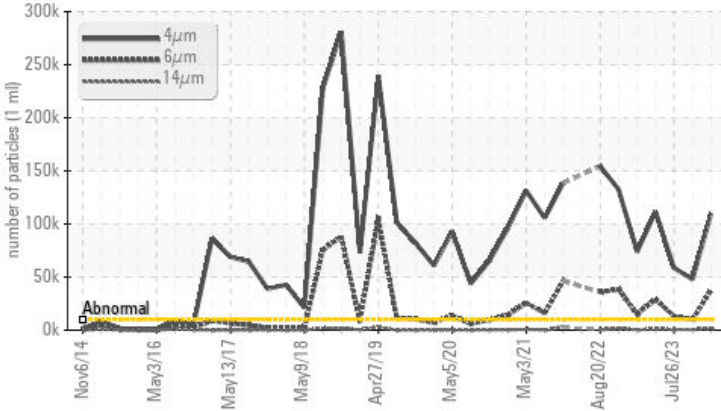


Area
RP-101
 Machine Id
B57016 PRESSER FEED SCREW 4
 Component
Gearbox
 Fluid
PETRO CANADA ENDURATEX EP 320 (--- QTS)



COMPONENT CONDITION SUMMARY

Particle Trend



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. 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. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	SEVERE	SEVERE
Particles >4µm	ASTM D7647	>10000	🔴 109653	🟡 47893	🟡 58589
Particles >6µm	ASTM D7647	>1300	🔴 37275	🔴 10035	🔴 13067
Particles >14µm	ASTM D7647	>160	🔴 1395	🟡 543	🟡 584
Particles >21µm	ASTM D7647	>40	🟡 262	🟡 118	🟡 112
Oil Cleanliness	ISO 4406 (c)	>20/17/14	🔴 24/22/18	🔴 23/21/16	🔴 23/21/16

Customer Id: HORAUS
 Sample No.: WC0885404
 Lab Number: 06076828
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca


To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
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.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

HISTORICAL DIAGNOSIS


ISO




20 Oct 2023 Diag: Wes Davis

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. 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. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the 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




ISO




26 Jul 2023 Diag: Wes Davis

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. 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. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the 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




ISO



27 Apr 2023 Diag: Wes Davis

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. 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. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the 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.

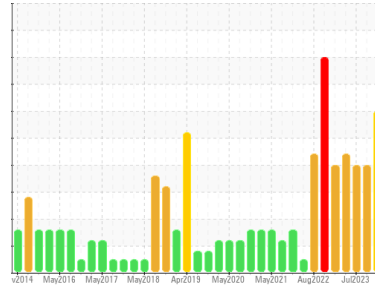
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OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
RP-101
 Machine Id
B57016 PRESSER FEED SCREW 4
 Component
Gearbox
 Fluid
PETRO CANADA ENDURATEX EP 320 (--- QTS)

DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. 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. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code.

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		WC0885404	WC0855999	WC0791983
Sample Date	Client Info		26 Jan 2024	20 Oct 2023	26 Jul 2023
Machine Age	mths	Client Info	0	0	0
Oil Age	mths	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			SEVERE	SEVERE	SEVERE

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	42	11	11
Chromium	ppm	ASTM D5185m >15	<1	<1	0
Nickel	ppm	ASTM D5185m >15	0	<1	<1
Titanium	ppm	ASTM D5185m	<1	<1	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	0	1	<1
Lead	ppm	ASTM D5185m >100	<1	0	0
Copper	ppm	ASTM D5185m >200	<1	<1	0
Tin	ppm	ASTM D5185m >25	<1	<1	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 55	26	30	31
Barium	ppm	ASTM D5185m 0	0	0	<1
Molybdenum	ppm	ASTM D5185m 0	0	<1	0
Manganese	ppm	ASTM D5185m 0	<1	0	0
Magnesium	ppm	ASTM D5185m 0	0	0	<1
Calcium	ppm	ASTM D5185m 0	0	0	2
Phosphorus	ppm	ASTM D5185m 240	431	428	415
Zinc	ppm	ASTM D5185m 1	8	6	6
Sulfur	ppm	ASTM D5185m 13700	5261	6015	5384

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	6	2	4
Sodium	ppm	ASTM D5185m	<1	0	0
Potassium	ppm	ASTM D5185m >20	1	2	<1

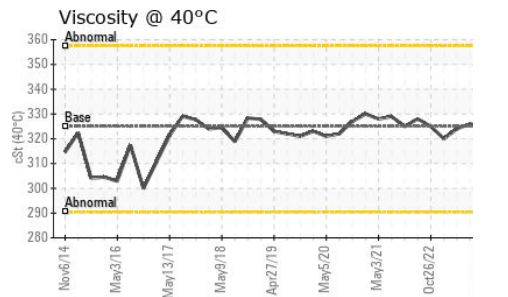
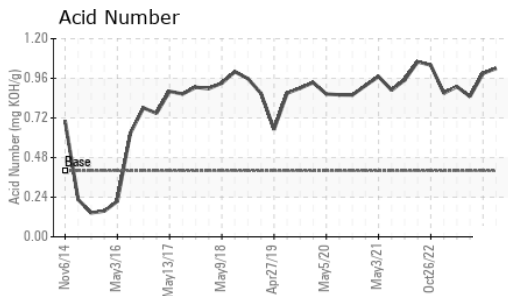
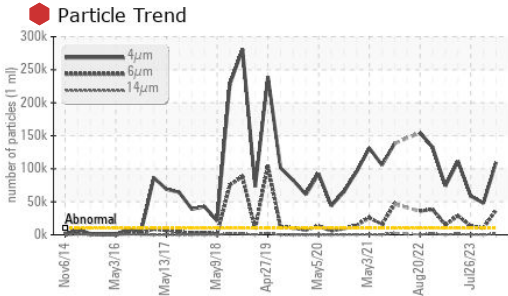
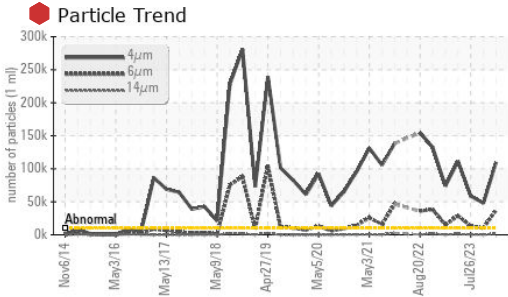
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	109653	47893	58589
Particles >6µm	ASTM D7647	>1300	37275	10035	13067
Particles >14µm	ASTM D7647	>160	1395	543	584
Particles >21µm	ASTM D7647	>40	262	118	112
Particles >38µm	ASTM D7647	>10	10	3	6
Particles >71µm	ASTM D7647	>3	1	0	2
Oil Cleanliness	ISO 4406 (c)	>20/17/14	24/22/18	23/21/16	23/21/16

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	1.02	0.99	0.85

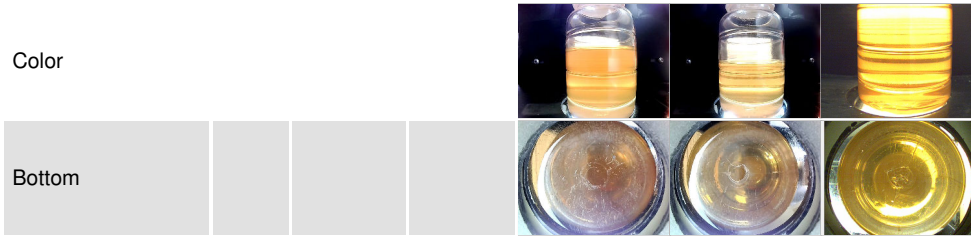
OIL ANALYSIS REPORT



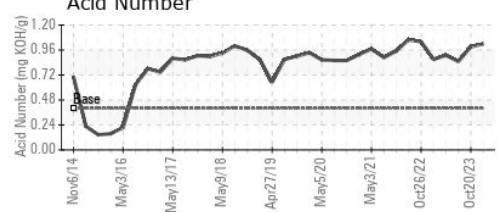
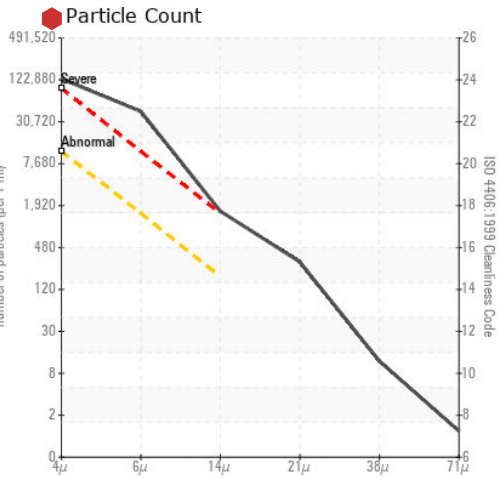
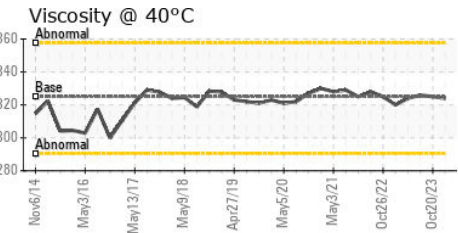
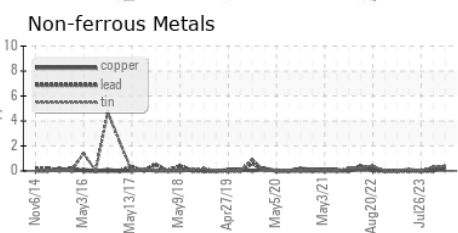
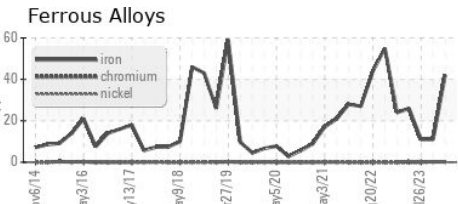
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	325	324	325

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0885404 **Received** : 01 Feb 2024
Lab Number : 06076828 **Diagnosed** : 02 Feb 2024
Unique Number : 10858919 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: PrtCount)

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 1101 NORTH MAIN ST
 AUSTIN, MN
 US 55912
 Contact: RYAN LOWE
 rslowe@hormel.com
 T: (507)437-5674
 F: (507)437-9805

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)