

PROBLEM SUMMARY

Sample Rating Trend

ISO

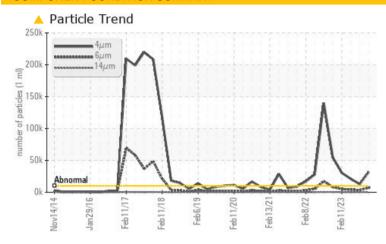
RP-101

B57020 CENTRIFUGE FINES CONVEYOR (S/N NO INFO ON BOTTLE)

Component Gearbox

PETRO CANADA ENDURATEX EP 320 (--- QTS)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor.

PROBLEMATIC TEST	RESULTS				
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL
Particles >4µm	ASTM D7647	>10000	△ 31856	<u>▲</u> 12812	<u>^</u> 21152
Particles >6µm	ASTM D7647	>1300	7109	▲ 3187	<u></u> 4120
Particles >14µm	ASTM D7647	>160	^ 270	<u>^</u> 241	71
Oil Cleanliness	ISO 4406 (c)	>20/17/14	22/20/15	▲ 21/19/15	22/19/13

Customer Id: HORAUS Sample No.: WC0855980 Lab Number: 06001019 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Angela Borella +1 800-237-1369 angela.borella@wearcheckusa.com

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.
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

06 Aug 2023 Diag: Wes Davis



We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above 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.



07 May 2023 Diag: Wes Davis



We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above 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.



11 Feb 2023 Diag: Wes Davis





We recommend you service the filters on this component. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. Oil Cleanliness are abnormally high. Particles >4µm are abnormally high. Particles >6µm are abnormally high. The system cleanliness is above 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.





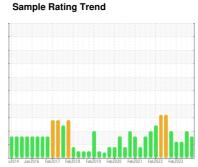
OIL ANALYSIS REPORT

RP-101

B57020 CENTRIFUGE FINES CONVEYOR (S/N NO INFO ON BOTTLE)

Gearbox

PETRO CANADA ENDURATEX EP 320 (--- QTS)





DIAGNOSIS

Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

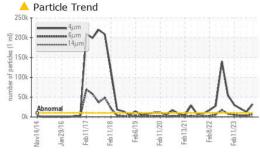
		v2014 Jan201	6 Feb2017 Feb2018 Feb2	019 Feb2020 Feb2021 Feb2022	Feb 2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0855980	WC0826156	WC0791985
Sample Date		Client Info		30 Oct 2023	06 Aug 2023	07 May 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	16	15	13
Chromium	ppm	ASTM D5185m	>15	0	<1	0
Nickel	ppm	ASTM D5185m	>15	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	0	<1	0
Lead	ppm	ASTM D5185m	>100	0	0	0
Copper	ppm	ASTM D5185m	>200	0	<1	0
Tin	ppm	ASTM D5185m	>25	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	55	13	15	11
Barium	ppm	ASTM D5185m	0	0	0	2
Molybdenum	ppm	ASTM D5185m	0	0	0	0
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	0	0	3	<1
Calcium	ppm	ASTM D5185m	0	1	3	2
Phosphorus	ppm	ASTM D5185m	240	399	431	381
Zinc	ppm	ASTM D5185m	1	32	27	20
Sulfur	ppm	ASTM D5185m	13700	5303	6045	5430
CONTAMINANTS	3	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	15	24	8
Sodium	ppm	ASTM D5185m		2	2	0
Potassium	ppm	ASTM D5185m	>20	<1	2	2
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ 31856	▲ 12812	<u>^</u> 21152
Particles >6µm		ASTM D7647	>1300	^ 7109	△ 3187	<u></u> 4120
Particles >14µm		ASTM D7647	>160	270	<u>^</u> 241	71
Particles >21µm		ASTM D7647	>40	54	<u>^</u> 74	12
Particles >38µm		ASTM D7647	>10	3	5	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/17/14	<u>22/20/15</u>	<u>\$\text{\Delta}\$ 21/19/15</u>	<u>22/19/13</u>
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.94	0.90	0.87

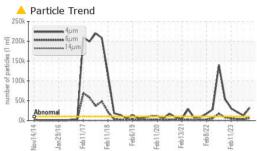


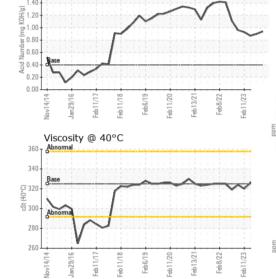
Acid Number

1.60

OIL ANALYSIS REPORT

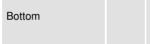


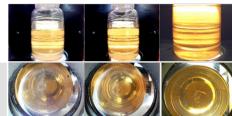




VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	325	327	328	326
SAMDLE IMAGES	2	method	limit/haco	current	hietory1	hietory2

Color





GRAPHS	
Ferrous Alloys	▲ Particle Count
T-2000-1-100-1-100-1-100-1-100-1-100-1-100-1-100-1-100-1-100-1-100-1-100-1-100-1-100-1-100-1-100-1-100-1-100-1	491,520
chromium	122,880 Severe
Secondona Dicke	30,720
\	Abnormal 7,680
Nov14/14 Jan29/16 Feb11/17 Feb11/18 Feb6/19 Feb11/20 Feb13/21	(per 1 m) (per 1 m) (per 1 m)
Nov14/14 Jan29/16 Feb11/17 Feb11/18 Feb6/19 Feb11/20 Feb13/21	量 量 1,920
Non-ferrous Metals	480
copper	Teb 11/23 Feb 11
mananananan tin	30
The Alamana and the Alamana	
AAA AAA	8
Nov14/14 Jan29/16 Feb11/17 Feb11/18 Feb6/19 Feb11/20	Feb 8/22
	Φ
Viscosity @ 40°C	Acid Number
	B 1.50
Base	g1.00
Abnotina	0.50 + Base
V	0.50 Sase 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Mov14/14 Jan29/16 Feb11/17 Feb11/20 Feb11/20	Feb11/23 Feb11/23 Feb11/20 Feb11/17 Feb11/20 Feb13/21 Feb8/72 Feb11/23
No. Teb	





Laboratory Sample No. Lab Number

Unique Number

: WC0855980 : 06001019 : 10729379

cSt (40°C)

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received Diagnosed

: 07 Nov 2023 : 09 Nov 2023 Diagnostician : Angela Borella

Test Package : IND 2 (Additional Tests: PrtCount) Certificate L2367 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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