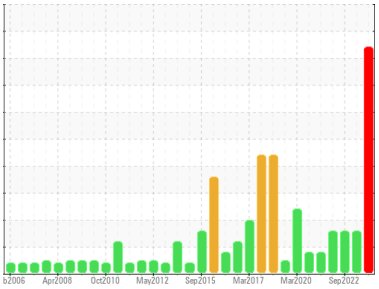
PROBLEM SUMMARY

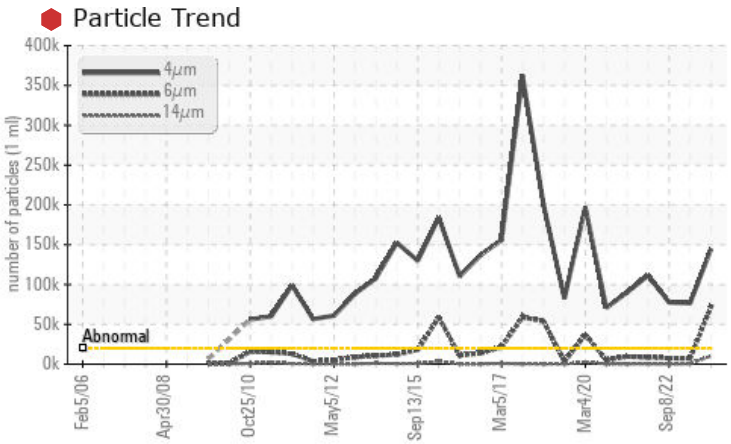
Sample Rating Trend



ISO

Area
1314
Machine Id
MILL FEED CONVEYOR
Component
Gearbox
Fluid
PETRO CANADA ENDURATEX SYNTHETIC EP 220 (50 LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We recommend that you drain the oil from the component if this has not already been done. 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. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. Resample in 30-45 days to monitor this situation.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	ABNORMAL
Lithium	ppm	ASTM D5185(m)		▲ **33**	▲ 26	▲ 29
Particles >4µm		ASTM D7647	>20000	▲ **144364**	▲ 76537	▲ 77491
Particles >6µm		ASTM D7647	>5000	⬢ **71847**	▲ 6924	▲ 7482
Particles >14µm		ASTM D7647	>640	⬢ **10298**	395	114
Particles >21µm		ASTM D7647	>160	⬢ **3239**	105	30
Particles >38µm		ASTM D7647	>40	▲ **308**	0	2
Particles >71µm		ASTM D7647	>10	▲ **45**	0	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	⬢ **24/23/21**	▲ 23/20/16	▲ 23/20/14

Customer Id: INCVOS
Sample No.: PC0070110
Lab Number: 02590402
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.
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
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.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.

HISTORICAL DIAGNOSIS

27 Apr 2023 Diag: Kevin Marson

ADDITIVES

We advise that you check all areas where contaminants can enter the system. 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. Particles >4µm and oil cleanliness are abnormally high. Particles >6µm are notably high. Lithium (Li) level abnormal at 26ppm., indicates possible grease contamination. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

view report

08 Sep 2022 Diag: Kevin Marson

ADDITIVES

We advise that you check all areas where contaminants can enter the system. 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. Particles >4µm and oil cleanliness are abnormally high. Particles >6µm are notably high. Lithium (Li) level abnormal at 29ppm., indicates possible grease contamination. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

view report

04 Jul 2022 Diag: Kevin Marson

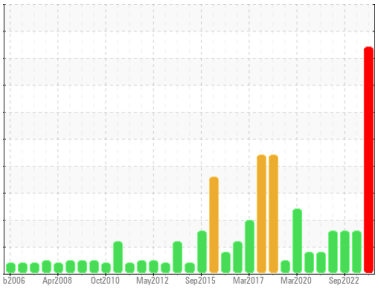
ADDITIVES

We advise that you check all areas where contaminants can enter the system. 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. Particles >4µm and oil cleanliness are abnormally high. Particles >6µm are notably high. Lithium (Li) level abnormal at 27ppm., indicates possible grease contamination. 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



ISO

Area
1314
Machine Id
MILL FEED CONVEYOR
Component
Gearbox
Fluid
PETRO CANADA ENDURATEX SYNTHETIC EP 220 (50 LTR)

DIAGNOSIS

Recommendation

We advise that you check all areas where contaminants can enter the system. We recommend that you drain the oil from the component if this has not already been done. 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. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. Resample in 30-45 days to monitor this situation.

Wear

All component wear rates are normal.

Contamination

Lithium (Li) level abnormal at 33ppm., indicates possible grease contamination. There is a high amount of particulates (2 to 100 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0070110**	PC0040305	PC0040266
Sample Date		Client Info		**11 Sep 2023**	27 Apr 2023	08 Sep 2022
Machine Age	yrs	Client Info		**0**	0	0
Oil Age	yrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**0**	0	0
Iron	ppm	ASTM D5185(m)	>200	**18**	11	12
Chromium	ppm	ASTM D5185(m)	>15	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>15	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	<1
Silver	ppm	ASTM D5185(m)		**<1**	0	0
Aluminum	ppm	ASTM D5185(m)	>25	**<1**	<1	<1
Lead	ppm	ASTM D5185(m)	>100	**0**	0	0
Copper	ppm	ASTM D5185(m)	>200	**2**	<1	<1
Tin	ppm	ASTM D5185(m)	>25	**0**	0	0
Antimony	ppm	ASTM D5185(m)	>5	**<1**	1	2
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

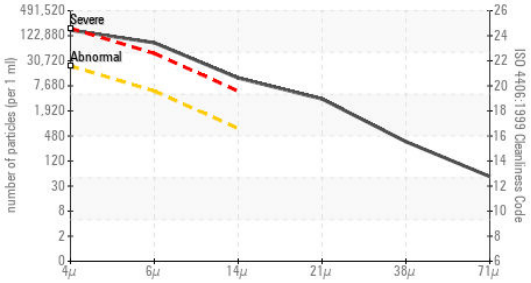
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	33	**14**	13	13
Barium	ppm	ASTM D5185(m)	5	**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)		**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)	5	**<1**	<1	<1
Calcium	ppm	ASTM D5185(m)	5	**2**	0	1
Phosphorus	ppm	ASTM D5185(m)	437	**467**	469	488
Zinc	ppm	ASTM D5185(m)	5	**24**	14	14
Sulfur	ppm	ASTM D5185(m)	5000	**2638**	2633	2444
Lithium	ppm	ASTM D5185(m)		▲ **33**	▲ 26	▲ 29

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	**10**	9	7
Sodium	ppm	ASTM D5185(m)		**<1**	0	<1
Potassium	ppm	ASTM D5185(m)	>20	**1**	2	1

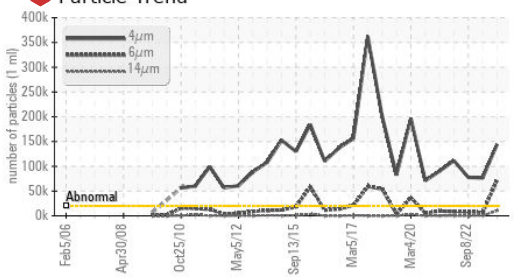
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ **144364**	▲ 76537	▲ 77491
Particles >6µm		ASTM D7647	>5000	⬢ **71847**	▲ 6924	▲ 7482
Particles >14µm		ASTM D7647	>640	⬢ **10298**	395	114
Particles >21µm		ASTM D7647	>160	⬢ **3239**	105	30
Particles >38µm		ASTM D7647	>40	▲ **308**	0	2
Particles >71µm		ASTM D7647	>10	▲ **45**	0	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	⬢ **24/23/21**	▲ 23/20/16	▲ 23/20/14

OIL ANALYSIS REPORT

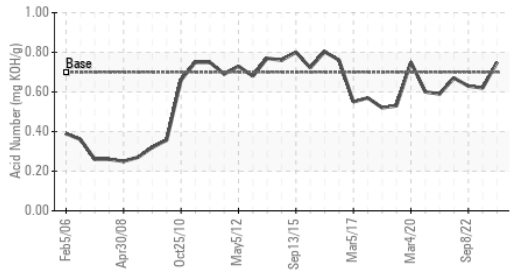
Particle Count



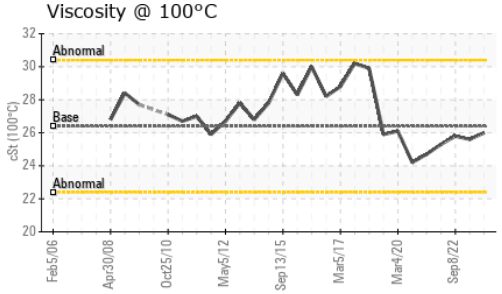
Particle Trend



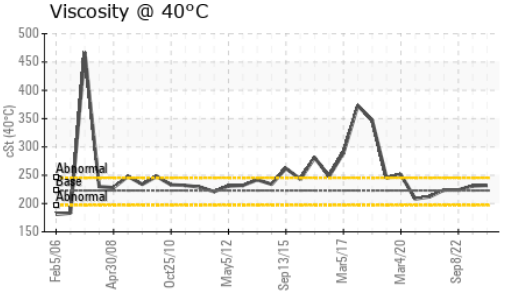
Acid Number



Viscosity @ 100°C



Viscosity @ 40°C



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.7	**0.75**	0.62	0.63

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	**VLITE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**VLITE**	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 PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	223	**232**	231	224
Visc @ 100°C	cSt	ASTM D7279(m)	26.39	**26.0**	25.6	25.8
Viscosity Index (VI)	Scale	ASTM D2270*	151	**143**	141	146

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0070110 **Received** : 19 Oct 2023
Lab Number : 02590402 **Diagnosed** : 20 Oct 2023
Unique Number : 5659468 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: KV100, PQ, PrtCount, TAN Man, VI)

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.

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