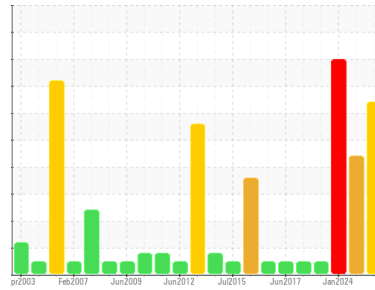


PROBLEM SUMMARY

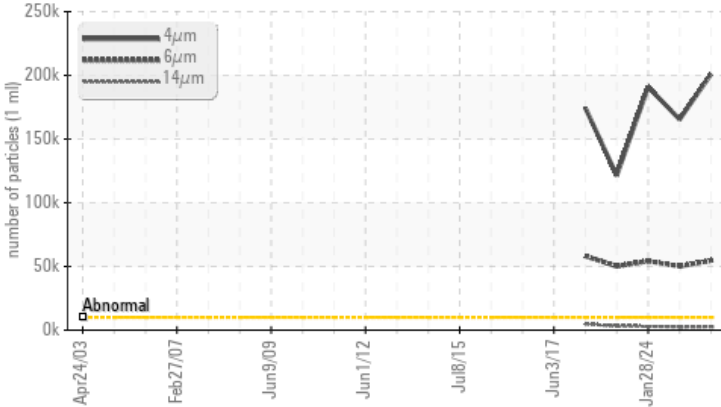
Area
Main Power Generation
 Machine Id
Generator - MPG (Port) - Atomizing Compressor Crank Case (S/N Sample Tag XX-80201-S3)
 Component
Compressor
 Fluid
PETRO CANADA ENDURATEX EP 220 (2 LTR)

Sample Rating Trend



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.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	SEVERE	SEVERE
Particles >4µm	ASTM D7647	>10000	▲ 200932	▲ 165448	▲ 190880
Particles >6µm	ASTM D7647	>2500	▲ 54655	▲ 50087	▲ 54257
Particles >14µm	ASTM D7647	>320	▲ 2591	▲ 2411	▲ 2935
Particles >21µm	ASTM D7647	>80	▲ 555	▲ 510	▲ 678
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 25/23/19	▲ 25/23/18	▲ 25/23/19

Customer Id: TERHAM
 Sample No.: PC
 Lab Number: 02631661
 Test Package: MAR 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 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.
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




06 Feb 2024 Diag: Kevin Marson
 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. All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The water content is negligible. 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



28 Jan 2024 Diag: Bill Quesnel
 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. All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. The water content is negligible. 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



NORMAL



16 Dec 2023 Diag: Kevin Marson
 Resample at the next service interval to monitor. All component wear rates are normal. The water content is negligible. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Area

Main Power Generation

Machine Id

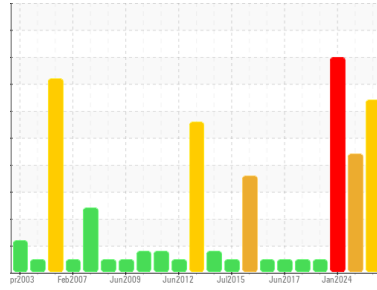
Generator - MPG (Port) - Atomizing Compressor Crank Case (S/N Sample Tag XX-80201-S3)

Component

Compressor

Fluid

PETRO CANADA ENDURATEX EP 220 (2 LTR)



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.

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 water content is negligible.

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	PC	PC0076665	PC
Sample Date	Client Info	03 Apr 2024	06 Feb 2024	28 Jan 2024
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		SEVERE	SEVERE	SEVERE

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	0	0
Iron	ppm	ASTM D5185(m) >50	6	6
Chromium	ppm	ASTM D5185(m) >5	0	0
Nickel	ppm	ASTM D5185(m)	0	<1
Titanium	ppm	ASTM D5185(m)	0	0
Silver	ppm	ASTM D5185(m)	0	0
Aluminum	ppm	ASTM D5185(m) >15	<1	<1
Lead	ppm	ASTM D5185(m) >65	0	0
Copper	ppm	ASTM D5185(m) >65	2	2
Tin	ppm	ASTM D5185(m) >10	0	0
Antimony	ppm	ASTM D5185(m)	0	0
Vanadium	ppm	ASTM D5185(m)	0	0
Beryllium	ppm	ASTM D5185(m)	0	0
Cadmium	ppm	ASTM D5185(m)	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 60	76	77
Barium	ppm	ASTM D5185(m) 0	<1	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0
Manganese	ppm	ASTM D5185(m) 0	0	0
Magnesium	ppm	ASTM D5185(m) 0	<1	<1
Calcium	ppm	ASTM D5185(m) 0	1	2
Phosphorus	ppm	ASTM D5185(m) 270	288	290
Zinc	ppm	ASTM D5185(m) 0	2	2
Sulfur	ppm	ASTM D5185(m) 11200	5456	5978
Lithium	ppm	ASTM D5185(m)	<1	<1

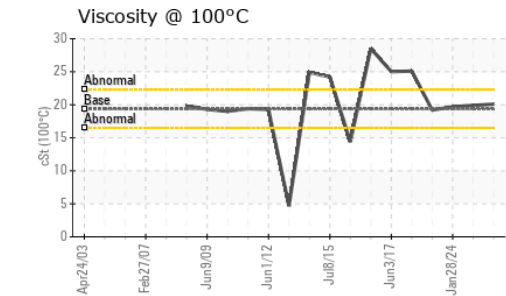
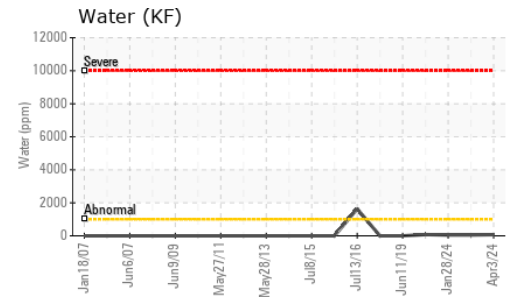
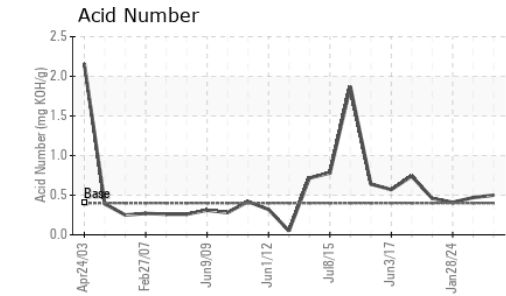
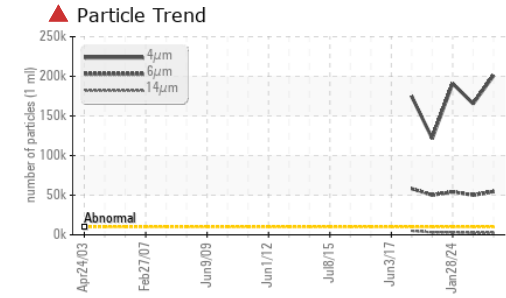
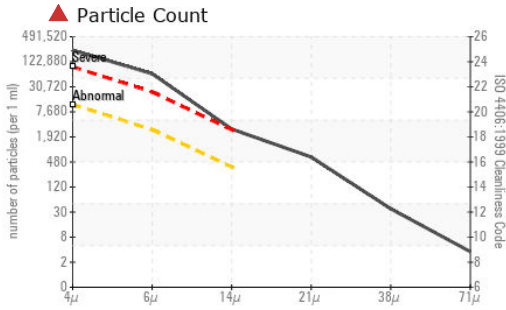
CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >35	3	4
Sodium	ppm	ASTM D5185(m)	<1	<1
Potassium	ppm	ASTM D5185(m) >20	<1	<1
Water	%	ASTM D6304* >0.1	0.006	0.004
ppm Water	ppm	ASTM D6304* >1000	69	48

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ 200932	▲ 165448
Particles >6µm	ASTM D7647	>2500	▲ 54655	▲ 50087
Particles >14µm	ASTM D7647	>320	▲ 2591	▲ 2411
Particles >21µm	ASTM D7647	>80	▲ 555	▲ 510
Particles >38µm	ASTM D7647	>20	● 32	27
Particles >71µm	ASTM D7647	>4	3	3
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 25/23/19	▲ 25/23/18

OIL ANALYSIS REPORT

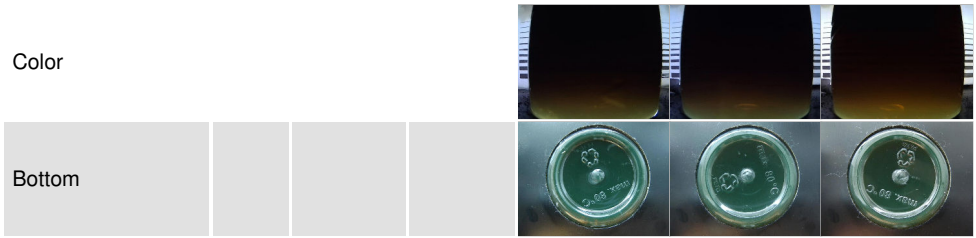


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.40	0.50	0.47	0.41

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	VLITE
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*	>0.1	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)	220	209	210	210
Visc @ 100°C	cSt	ASTM D7279(m)	19.35	20.1	19.9	19.7
Viscosity Index (VI)	Scale	ASTM D2270*	99	111	109	107

SAMPLE IMAGES



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC
Lab Number : 02631661
Unique Number : 5772814
Test Package : MAR 2 (Additional Tests: KF, KV100, PQ, PrtCount, TAN Man, VI)

Suncor - Terra Nova Projects
 Scotia Centre, 235 Water Street
 St. John's, NL
 CA A1C 1B6
 Contact: Josh Hynes
 joshynes@suncor.com
 T: (709)778-3575
 F: (709)724-2835

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.