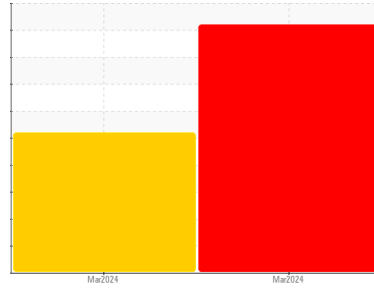


PROBLEM SUMMARY

Sample Rating Trend



ISO



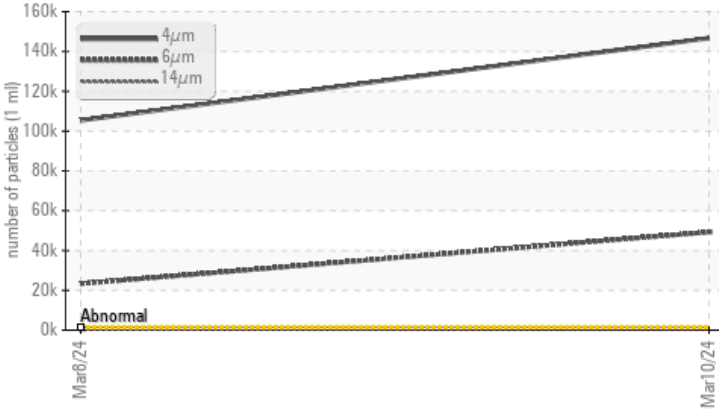
Machine Id
429845

Component
Hydraulic System

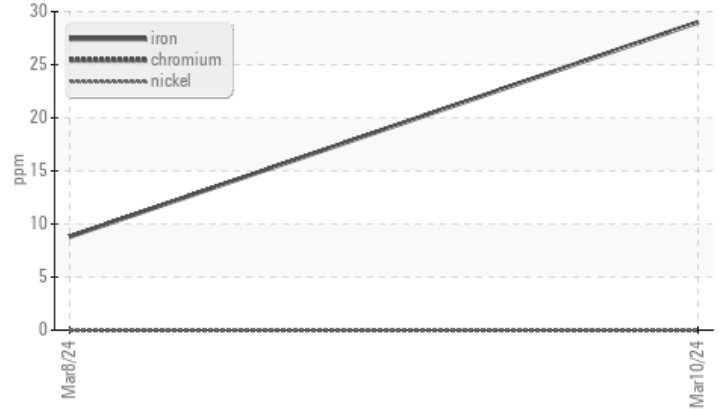
Fluid
PETRO CANADA HYDREX MV 22 (--- LTR)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



● Ferrous Alloys



RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. The oil change at the time of sampling has been noted. 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. Confirm the source of the lubricant being utilized for top-up/fill. 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	---
Particles >4µm	ASTM D7647	>1300	▲ 146692	▲ 105389	---
Particles >6µm	ASTM D7647	>320	▲ 49257	▲ 23345	---
Particles >14µm	ASTM D7647	>80	▲ 928	▲ 413	---
Particles >21µm	ASTM D7647	>20	▲ 173	▲ 61	---
Particles >38µm	ASTM D7647	>4	▲ 11	2	---
Oil Cleanliness	ISO 4406 (c)	>17/15/13	▲ 24/23/17	▲ 24/22/16	---

Customer Id: BLU410MIS
Sample No.: PC0081143
Lab Number: 02623729
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
Resample	MISSED	Mar 22 2024	?	Resample in 30-45 days to monitor this situation.
Information Required	MISSED	Mar 22 2024	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check Breathers	MISSED	Mar 22 2024	?	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	MISSED	Mar 22 2024	?	We advise that you check all areas where contaminants can enter the system.
Check Fluid Source	MISSED	Mar 22 2024	?	Confirm the source of the lubricant being utilized for top-up/fill.

HISTORICAL DIAGNOSIS

08 Mar 2024 Diag:

ISO



view report

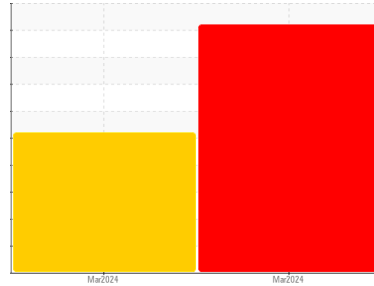




Machine Id
429845

Component
Hydraulic System

Fluid
PETRO CANADA HYDREX MV 22 (--- LTR)



DIAGNOSIS

▲ Recommendation

We advise that you check all areas where contaminants can enter the system. The oil change at the time of sampling has been noted. 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. Confirm the source of the lubricant being utilized for top-up/fill. 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

Iron ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. All other 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

Additive levels indicate the addition of a different brand, or type of oil. 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	PC0081143	PC0081136	---
Sample Date	Client Info	10 Mar 2024	08 Mar 2024	---
Machine Age	yrs	Client Info	6	6
Oil Age	yrs	Client Info	6	6
Oil Changed	Client Info	Changed	Changed	---
Sample Status		SEVERE	SEVERE	---

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.05	NEG	NEG	---

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	---	---
Iron	ppm	ASTM D5185(m) >20	29	9
Chromium	ppm	ASTM D5185(m) >20	0	0
Nickel	ppm	ASTM D5185(m) >20	0	0
Titanium	ppm	ASTM D5185(m)	0	0
Silver	ppm	ASTM D5185(m)	0	0
Aluminum	ppm	ASTM D5185(m) >20	0	0
Lead	ppm	ASTM D5185(m) >20	0	0
Copper	ppm	ASTM D5185(m) >20	<1	<1
Tin	ppm	ASTM D5185(m) >20	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

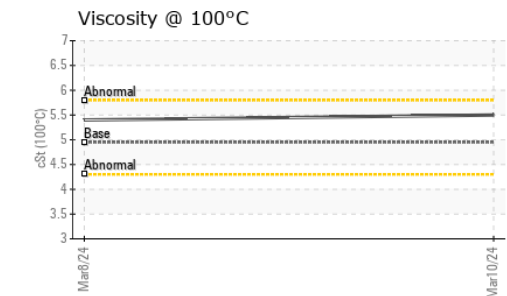
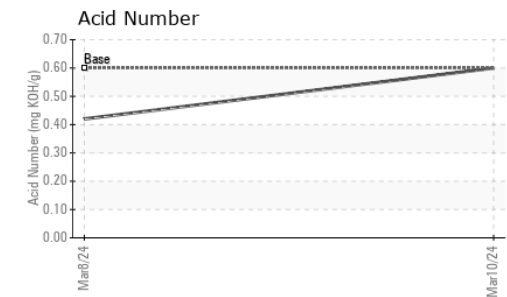
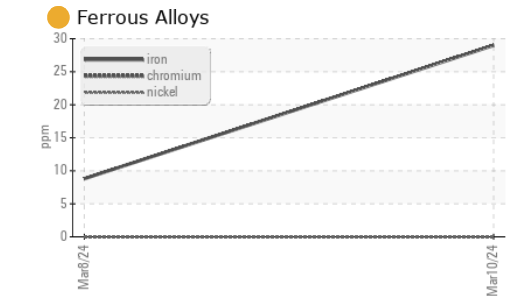
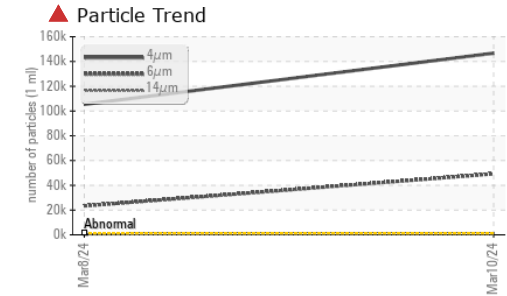
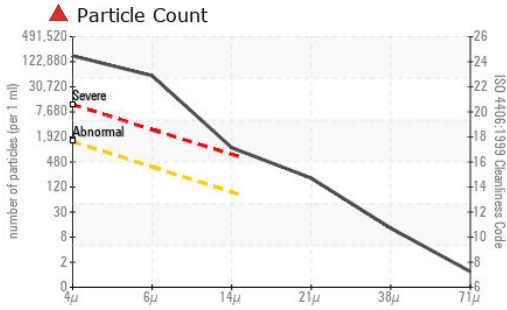
ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	13	<1
Barium	ppm	ASTM D5185(m) 0	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	4
Manganese	ppm	ASTM D5185(m) 1	0	0
Magnesium	ppm	ASTM D5185(m) 0	6	10
Calcium	ppm	ASTM D5185(m) 50	52	71
Phosphorus	ppm	ASTM D5185(m) 330	394	313
Zinc	ppm	ASTM D5185(m) 430	385	401
Sulfur	ppm	ASTM D5185(m) 760	2394	714
Lithium	ppm	ASTM D5185(m)	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	9	2
Sodium	ppm	ASTM D5185(m)	3	<1
Potassium	ppm	ASTM D5185(m) >20	<1	0

OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0081143 **Received** : 21 Mar 2024
Lab Number : **02623729** **Tested** : 22 Mar 2024
Unique Number : 5748848 **Diagnosed** : 22 Mar 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: KV100, PQ, VI)

Blue Giant Equipment Corporation
 410 Admiral Boulevard
 Mississauga, ON
 CA L5T 2N6
 Contact: Hugo Cristovao
 hcristovao@bluegiant.com
 T: (905)457-3900
 F: (905)457-2313

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.

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>1300	▲ 146692	▲ 105389	---	---
Particles >6µm	ASTM D7647	>320	▲ 49257	▲ 23345	---	---
Particles >14µm	ASTM D7647	>80	▲ 928	▲ 413	---	---
Particles >21µm	ASTM D7647	>20	▲ 173	▲ 61	---	---
Particles >38µm	ASTM D7647	>4	▲ 11	2	---	---
Particles >71µm	ASTM D7647	>3	1	1	---	---
Oil Cleanliness	ISO 4406 (c)	>17/15/13	▲ 24/23/17	▲ 24/22/16	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	0.60	0.42	---

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	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.05	NEG	NEG	---
Free Water	scalar	Visual*		NEG	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	22.2	27.9	▲ 30.0	---
Visc @ 100°C	cSt	ASTM D7279(m)	4.95	5.5	5.4	---
Viscosity Index (VI)	Scale	ASTM D2270*	156	138	▲ 115	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						no image
Bottom						no image