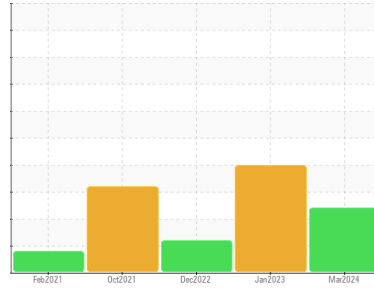


Machine Id
EX0096

Component
Hydraulic System

Fluid
PETRO CANADA ENVIRON MV 46 (10 LTR)



DIAGNOSIS

Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

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	PC0080527	PC0061820	PC0061569
Sample Date	Client Info	11 Mar 2024	10 Jan 2023	02 Dec 2022
Machine Age	hrs	3647	2721	2655
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	Not Changd	Not Changd
Sample Status		ABNORMAL	SEVERE	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >20	6	4	4
Chromium	ppm ASTM D5185(m) >10	0	0	0
Nickel	ppm ASTM D5185(m) >10	<1	0	0
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m)	0	0	0
Aluminum	ppm ASTM D5185(m) >10	1	<1	<1
Lead	ppm ASTM D5185(m) >10	0	<1	<1
Copper	ppm ASTM D5185(m) >75	2	2	2
Tin	ppm ASTM D5185(m) >10	0	0	0
Antimony	ppm ASTM D5185(m)	0	0	0
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) 0	0	0	0
Barium	ppm ASTM D5185(m) 0	0	0	0
Molybdenum	ppm ASTM D5185(m) 0	0	0	0
Manganese	ppm ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm ASTM D5185(m) 0	4	4	4
Calcium	ppm ASTM D5185(m) 0	45	44	43
Phosphorus	ppm ASTM D5185(m) 650	309	323	313
Zinc	ppm ASTM D5185(m) 0	370	362	356
Sulfur	ppm ASTM D5185(m) 1420	2857	3144	3172
Lithium	ppm ASTM D5185(m)	<1	<1	<1

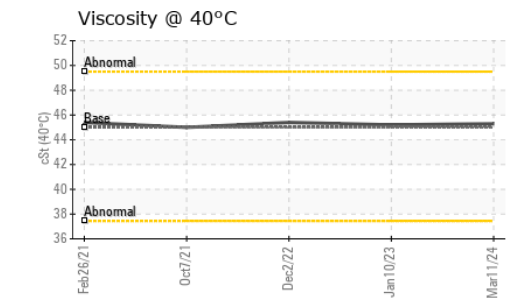
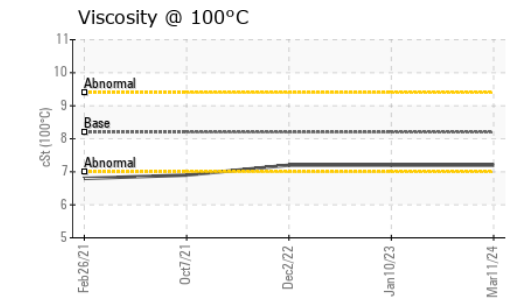
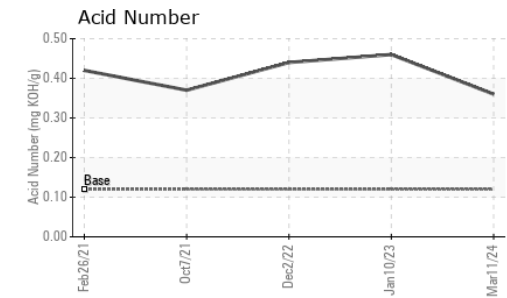
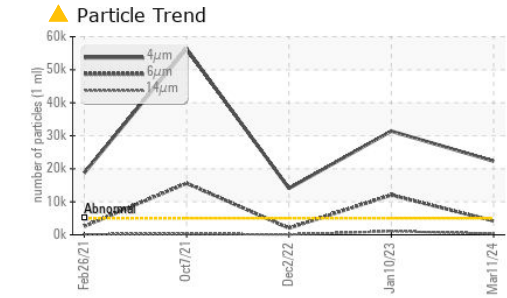
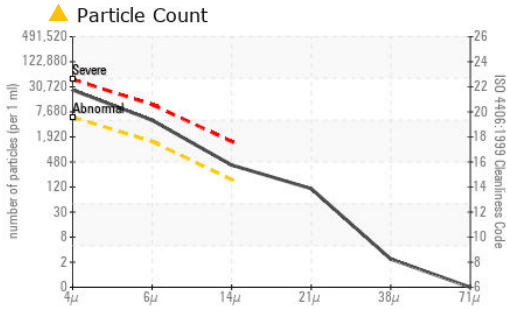
CONTAMINANTS

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

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	▲ 22308	▲ 31402	▲ 14071
Particles >6µm	ASTM D7647 >1300	▲ 4204	▲ 12043	● 2019
Particles >14µm	ASTM D7647 >160	▲ 356	▲ 1080	107
Particles >21µm	ASTM D7647 >40	▲ 97	▲ 260	24
Particles >38µm	ASTM D7647 >10	2	5	1
Particles >71µm	ASTM D7647 >3	0	1	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	▲ 22/19/16	▲ 22/21/17	▲ 21/18/14

OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0080527
Lab Number : 02622692
Unique Number : 5747811
Test Package : IND 2 (Additional Tests: KV100, VI)

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations
 151 Ram Forest Rd,
 Stouffville, ON
 CA L4A 2G8
 Contact: Bill Acton
 bacton@gipi.com

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 DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.12	0.36	0.46	0.44

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*	>0.1	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)	45.0	45.3	45.2	45.4
Visc @ 100°C	cSt	ASTM D7279(m)	8.2	7.2	7.2	7.2
Viscosity Index (VI)	Scale	ASTM D2270*	158	▲ 119	119	119

SAMPLE IMAGES

