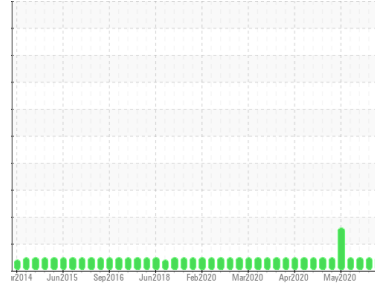


Area
Fwd Machinery Space [300297048]
Machine Id
Pump - Fire Water (Stbd) - Hydraulic Start (S/N Sample Tag PA-71001B-S3)
Component
Starboard Hydraulic System
Fluid
PETRO CANADA HYDREX MV ARCTIC 15 (140 LTR)



DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PC0052495	PC	PC0029739
Sample Date	Client Info	24 Feb 2024	22 Aug 2020	30 May 2020
Machine Age	hrs	0	0	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	0	0
Iron	ppm ASTM D5185(m) >20	0	<1	<1
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	0	<1
Lead	ppm ASTM D5185(m) >20	<1	0	0
Copper	ppm ASTM D5185(m) >20	<1	1	2
Tin	ppm ASTM D5185(m) >10	0	0	0
Antimony	ppm ASTM D5185(m)	0	<1	<1
Vanadium	ppm ASTM D5185(m)	0	0	0
Beryllium	ppm ASTM D5185(m)	0	0	0
Cadmium	ppm ASTM D5185(m)	0	0	0

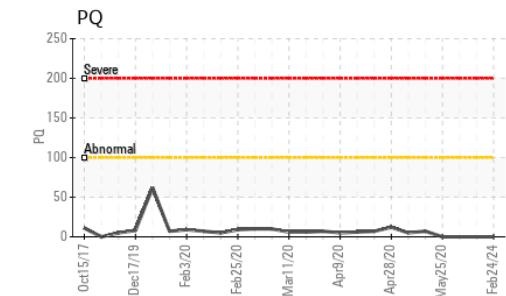
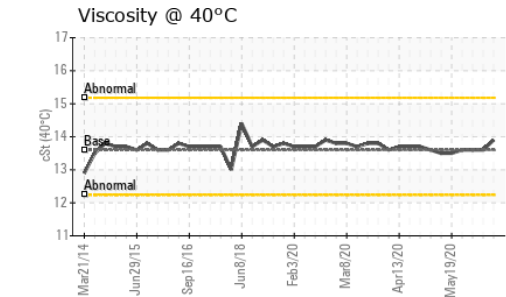
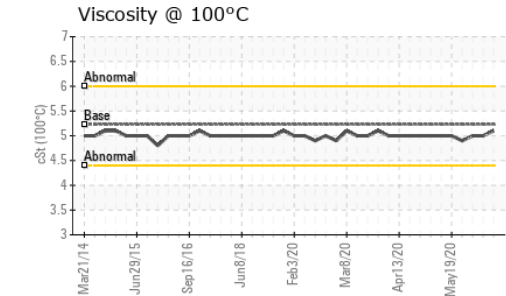
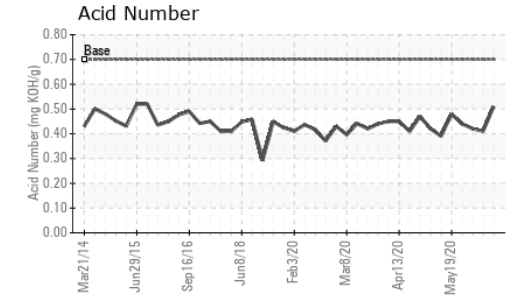
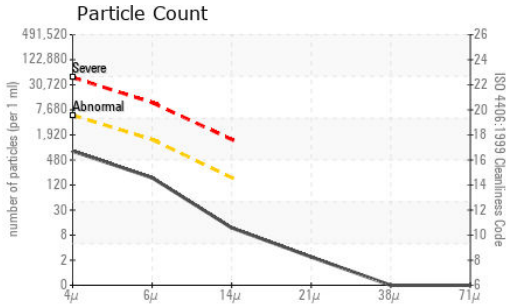
ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 0	0	<1	<1
Barium	ppm ASTM D5185(m) 0	0	<1	<1
Molybdenum	ppm ASTM D5185(m) 0	0	<1	<1
Manganese	ppm ASTM D5185(m) 0	0	0	0
Magnesium	ppm ASTM D5185(m) 0	1	1	<1
Calcium	ppm ASTM D5185(m) 50	53	146	152
Phosphorus	ppm ASTM D5185(m) 330	350	235	245
Zinc	ppm ASTM D5185(m) 430	444	337	347
Sulfur	ppm ASTM D5185(m) 760	868	714	753
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

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

OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0052495 **Received** : 12 Mar 2024
Lab Number : **02621428** **Tested** : 13 Mar 2024
Unique Number : 5746547 **Diagnosed** : 13 Mar 2024 - Kevin Marson
Test Package : MAR 2 (Additional Tests: KV100, PQ, 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.

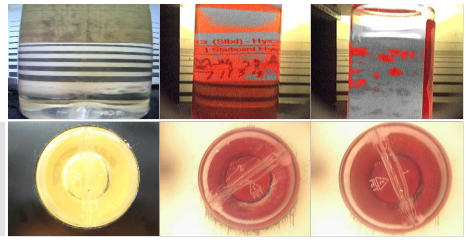
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	688	2098	4873	
Particles >6µm	ASTM D7647	>1300	158	347	603	
Particles >14µm	ASTM D7647	>160	10	38	20	
Particles >21µm	ASTM D7647	>40	2	19	5	
Particles >38µm	ASTM D7647	>10	0	2	0	
Particles >71µm	ASTM D7647	>3	0	0	0	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	17/14/10	18/16/12	19/16/11	

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.70	0.51	0.41	0.42

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*	>0.05	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)	13.6	13.9	13.6	13.6
Visc @ 100°C	cSt	ASTM D7279(m)	5.23	5.1	5.0	5.0
Viscosity Index (VI)	Scale	ASTM D2270*	394	364	363	363

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						



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