

Area
Aft Machinery Space
Machine Id
Thruster Aft Port - Seal Oil System (S/N Sample Tag CL-06002-S3)
Component
Sealing System
Fluid
PETRO CANADA ENERGOL GR-XP ISO 150 (65 LTR)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the fluid.

Fluid Condition

The AN level is acceptable for this fluid. The fluid 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	PC	PC0062028
Sample Date	Client Info	04 Jan 2024	14 Sep 2023	14 Aug 2023
Machine Age	hrs	0	0	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	ATTENTION	NORMAL

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	0	0
Iron	ppm	ASTM D5185(m) >100	6	6
Chromium	ppm	ASTM D5185(m) >3	0	0
Nickel	ppm	ASTM D5185(m) >8	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0
Silver	ppm	ASTM D5185(m)	0	<1
Aluminum	ppm	ASTM D5185(m) >3	<1	0
Lead	ppm	ASTM D5185(m)	0	<1
Copper	ppm	ASTM D5185(m) >3	<1	<1
Tin	ppm	ASTM D5185(m)	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

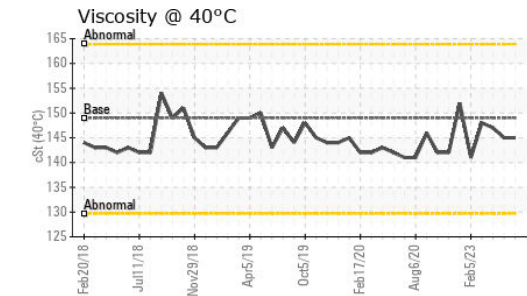
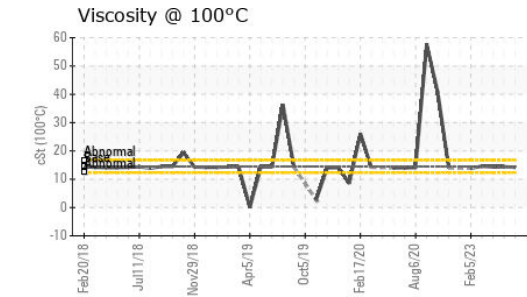
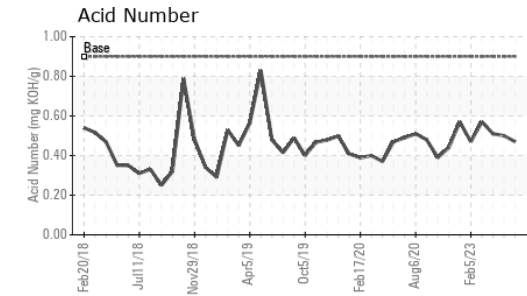
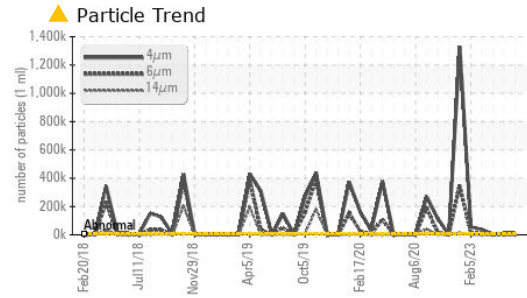
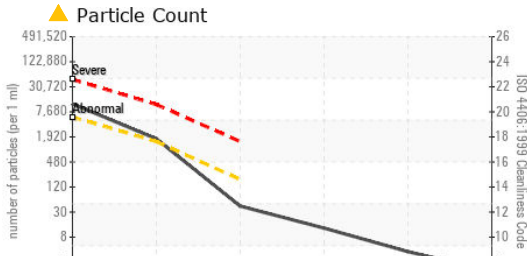
ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	9	4
Barium	ppm	ASTM D5185(m)	0	<1
Molybdenum	ppm	ASTM D5185(m)	0	0
Manganese	ppm	ASTM D5185(m)	0	0
Magnesium	ppm	ASTM D5185(m)	<1	1
Calcium	ppm	ASTM D5185(m)	2	4
Phosphorus	ppm	ASTM D5185(m)	170	179
Zinc	ppm	ASTM D5185(m)	5	8
Sulfur	ppm	ASTM D5185(m)	8491	13598
Lithium	ppm	ASTM D5185(m)	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	2	2
Sodium	ppm	ASTM D5185(m)	3	4
Potassium	ppm	ASTM D5185(m) >20	<1	0

OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC
Lab Number : 02611251
Unique Number : 5720346
Test Package : MAR 2 (Additional Tests: KV100, PQ, PrtCount, TAN Man, VI)
Received : 25 Jan 2024
Diagnosed : 26 Jan 2024
Diagnostician : Kevin Marson

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.

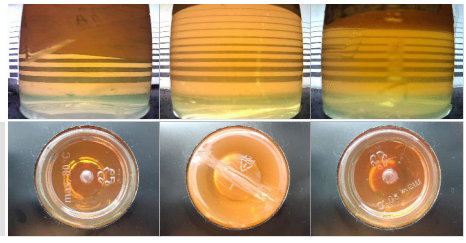
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 10383	▲ 9996	4963
Particles >6µm	ASTM D7647	>1300	▲ 1512	1265	1082
Particles >14µm	ASTM D7647	>160	37	37	106
Particles >21µm	ASTM D7647	>40	11	9	40
Particles >38µm	ASTM D7647	>10	3	1	4
Particles >71µm	ASTM D7647	>3	1	0	3
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/18/12	▲ 20/17/12	19/17/14

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*	0.9	0.47	0.50	0.51

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar Visual*	NONE	NONE	NONE	VLITE
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*		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)	149	145	145	147
Visc @ 100°C	cSt ASTM D7279(m)	14.5	14.2	14.4	14.3
Viscosity Index (VI)	Scale ASTM D2270*		94	97	94

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					



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