

Area
Aft Machinery Space
Machine Id
Thruster Aft Starboard - Seal Oil System (S/N Sample Tag CL-06003-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	PC
Sample Date	Client Info	05 Jan 2024	04 Jan 2024	14 Sep 2023
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		ABNORMAL	SEVERE	ABNORMAL

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	2	34	4
Chromium	ppm	ASTM D5185(m) >3	0	7	0
Nickel	ppm	ASTM D5185(m) >8	<1	2	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	<1
Aluminum	ppm	ASTM D5185(m) >3	<1	<1	0
Lead	ppm	ASTM D5185(m)	0	<1	0
Copper	ppm	ASTM D5185(m) >3	<1	1	<1
Tin	ppm	ASTM D5185(m)	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

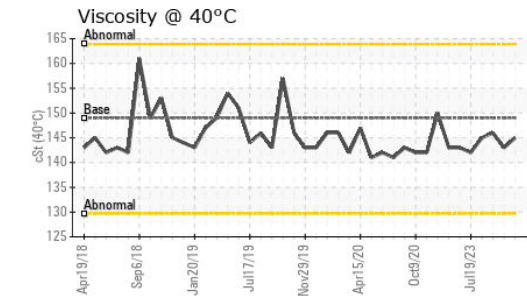
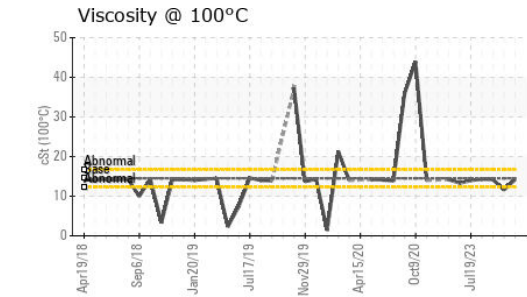
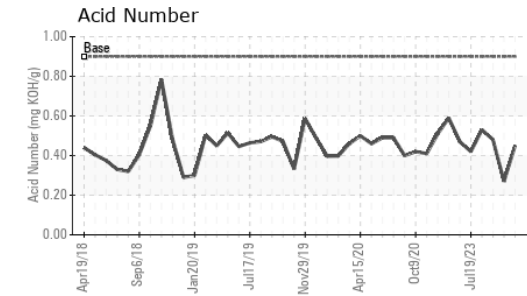
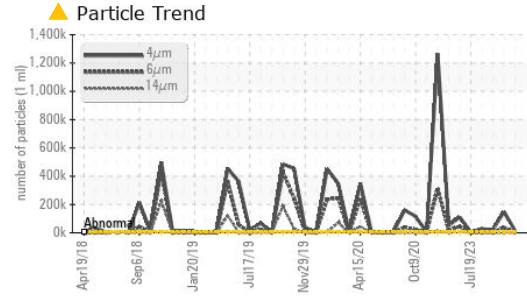
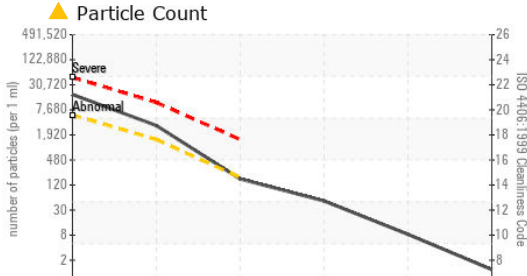
ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	12	<1	8
Barium	ppm	ASTM D5185(m)	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0
Magnesium	ppm	ASTM D5185(m)	<1	4	2
Calcium	ppm	ASTM D5185(m)	5	6	8
Phosphorus	ppm	ASTM D5185(m)	170	138	176
Zinc	ppm	ASTM D5185(m)	4	10	8
Sulfur	ppm	ASTM D5185(m)	10729	8796	14368
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >25	4	9	8
Sodium	ppm	ASTM D5185(m)	2	20	2
Potassium	ppm	ASTM D5185(m) >20	<1	2	0

OIL ANALYSIS REPORT



Laboratory Sample No. : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Lab Number : PC **Received** : 25 Jan 2024
Unique Number : 02611114 **Diagnosed** : 26 Jan 2024
Test Package : 5720209 **Diagnostician** : Kevin Marson
 : MAR 2 (Additional Tests: KV100, PQ, PrtCount, 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.

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

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 15578	● 148164	▲ 21592	
Particles >6µm	ASTM D7647	>1300	▲ 2817	● 38031	▲ 3089	
Particles >14µm	ASTM D7647	>160	148	● 1586	83	
Particles >21µm	ASTM D7647	>40	44	▲ 261	20	
Particles >38µm	ASTM D7647	>10	7	3	2	
Particles >71µm	ASTM D7647	>3	1	1	1	
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/19/14	● 24/22/18	▲ 22/19/14	

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.9	0.45	0.27	0.48

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	▲ WGOIL	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*		NEG	▲ 1%	NEG
Free Water	scalar	Visual*		NEG	▲ 1%	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	149	145	143	146
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	14.2	11.6	14.2
Viscosity Index (VI)	Scale	ASTM D2270*		94	▲ 54	94

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						