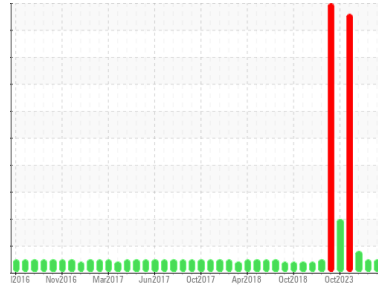


OIL ANALYSIS REPORT

Area
Turret
Machine Id
Circulation Tank Heat Transfer Fluid (WH-167891) (S/N Sample Tag: TB-16603 WH-167891)
Component
Heat Transfer Fluid
Fluid
PETRO CANADA TURBOFLO EP 46 (800 LTR)

Sample Rating Trend



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 fluid is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0052054	PC0080220	PC0080353
Sample Date	Client Info			16 Jun 2024	27 May 2024	09 Apr 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	ATTENTION

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.0601	NEG	NEG	NEG

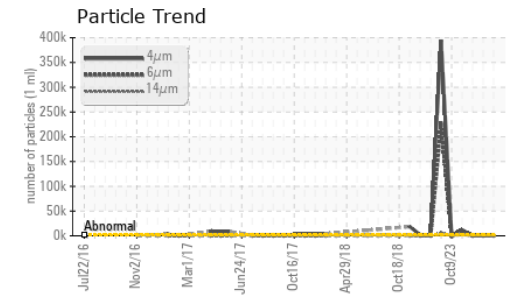
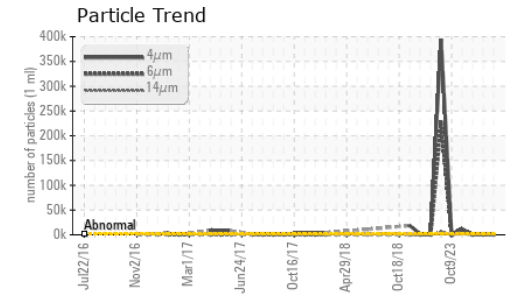
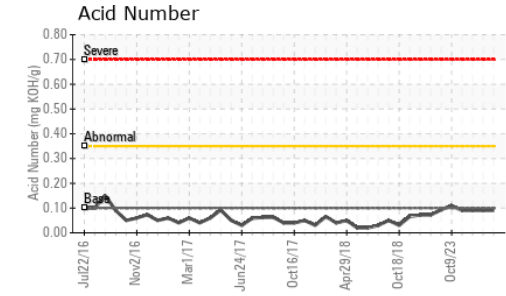
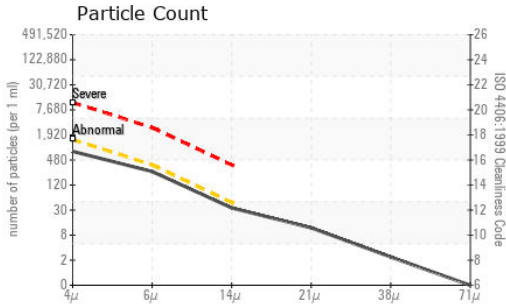
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>200	0	0	0
Chromium	ppm	ASTM D5185(m)	>21	0	0	0
Nickel	ppm	ASTM D5185(m)	>21	<1	0	0
Titanium	ppm	ASTM D5185(m)	>21	0	0	0
Silver	ppm	ASTM D5185(m)	>21	0	0	0
Aluminum	ppm	ASTM D5185(m)	>21	0	0	0
Lead	ppm	ASTM D5185(m)	>21	0	0	0
Copper	ppm	ASTM D5185(m)	>21	<1	0	0
Tin	ppm	ASTM D5185(m)	>21	0	0	0
Antimony	ppm	ASTM D5185(m)	>21	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)		<1	0	0
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		0	<1	0
Calcium	ppm	ASTM D5185(m)		<1	0	0
Phosphorus	ppm	ASTM D5185(m)	280	262	278	282
Zinc	ppm	ASTM D5185(m)	0.0	1	1	1
Sulfur	ppm	ASTM D5185(m)		721	697	726
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	0	0	0
Sodium	ppm	ASTM D5185(m)	>21	<1	1	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	678	241	463
Particles >6µm		ASTM D7647	>320	223	93	197
Particles >14µm		ASTM D7647	>40	30	14	44
Particles >21µm		ASTM D7647	>10	10	4	11
Particles >38µm		ASTM D7647	>3	2	0	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>17/15/12	17/15/12	15/14/11	16/15/13

OIL ANALYSIS REPORT

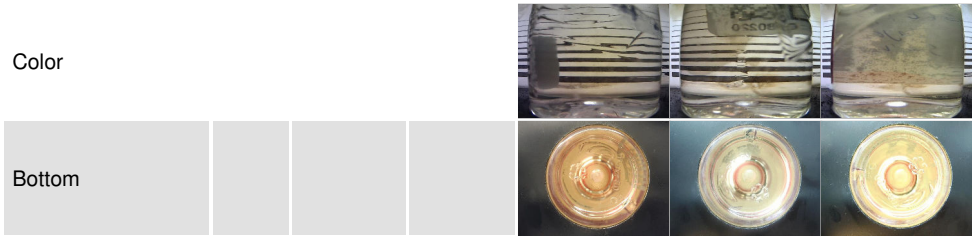


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	.10	0.09	0.09	0.09

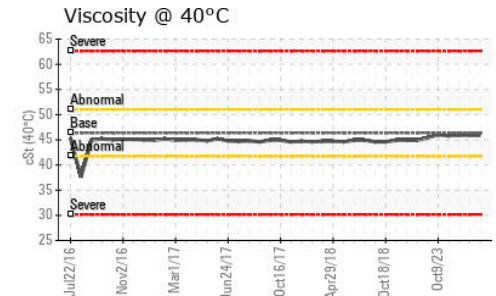
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.0601	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)	46.37	45.9	45.9	45.9

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0052054 **Received** : 16 Jul 2024
Lab Number : **02648146** **Tested** : 17 Jul 2024
Unique Number : 5813698 **Diagnosed** : 18 Jul 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: PrtCount, TAN Man)

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

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.