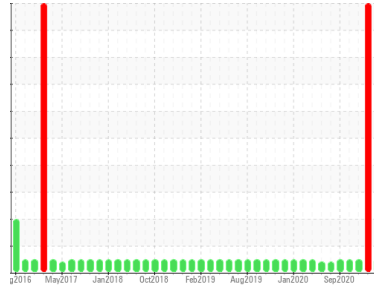


Area
Main Power Generation [450104987]
Machine Id
Generator - MPG (Port) Lube Oil System (S/N Sample Tag XX-80201-S1)
Component
Turbine
Fluid
PETRO CANADA TURBOFLO 32 (8300 LTR)



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 water content is negligible. 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	PC	PC	PC
Sample Date	Client Info	06 Feb 2023	02 Mar 2022	06 Sep 2020
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	SEVERE	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	0	16
Iron	ppm ASTM D5185(m) >15	<1	<1	<1
Chromium	ppm ASTM D5185(m) >4	0	0	0
Nickel	ppm ASTM D5185(m) >2	0	<1	<1
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)	<1	0	0
Copper	ppm ASTM D5185(m) >5	<1	<1	<1
Tin	ppm ASTM D5185(m) >5	<1	<1	<1
Antimony	ppm ASTM D5185(m)	<1	0	<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	<1	<1	<1
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	0
Magnesium	ppm ASTM D5185(m) 0	0	0	0
Calcium	ppm ASTM D5185(m) 0	0	<1	<1
Phosphorus	ppm ASTM D5185(m) 120	274	269	257
Zinc	ppm ASTM D5185(m) 0.0	<1	<1	<1
Sulfur	ppm ASTM D5185(m) 0	502	482	494
Lithium	ppm ASTM D5185(m)	<1	<1	<1

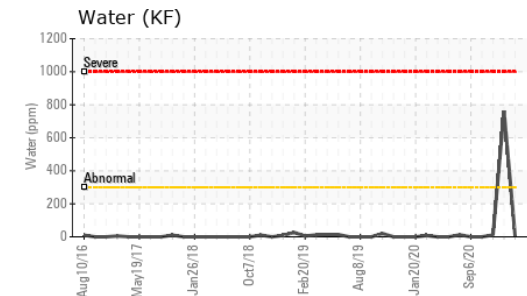
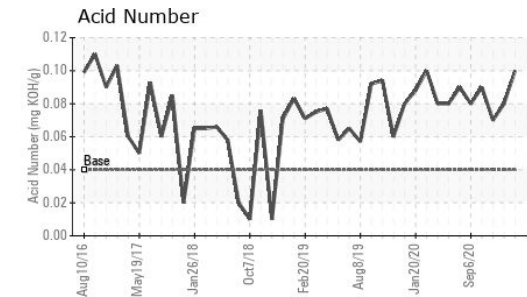
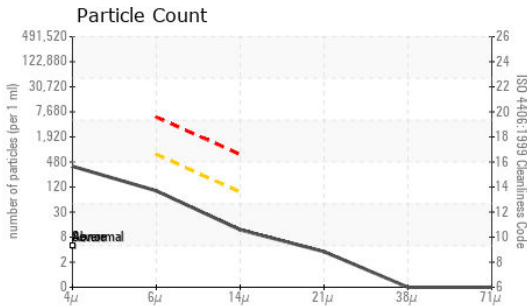
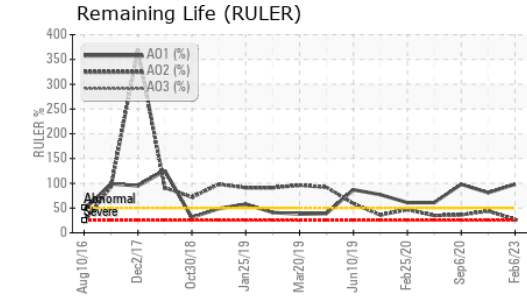
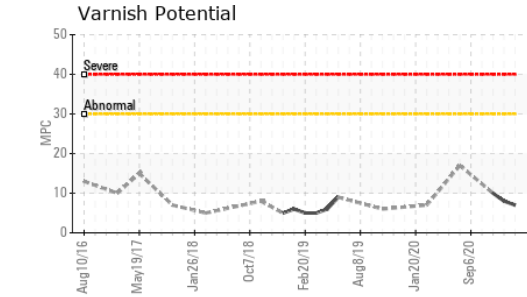
CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >15	<1	<1	<1
Sodium	ppm ASTM D5185(m)	0	0	0
Potassium	ppm ASTM D5185(m) >20	<1	2	<1
Water	% ASTM D6304* >0.03	0.001	▲ 0.076	0.001
ppm Water	ppm ASTM D6304* >300	7.6	▲ 761.2	11.3

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844*	0	0	0
Nitration	Abs/cm ASTM D7624*	2.0	2.0	1.7
Sulfation	Abs/.1mm ASTM D7415*	14.8	13.9	12.7

OIL ANALYSIS REPORT



Laboratory Sample No. :
Lab Number : 02545064
Unique Number : 5542069
Test Package : AOM 1

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
: PC
Received : 14 Mar 2023
Diagnosed : 21 Mar 2023
Diagnostician : Bill Quesnel

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

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.

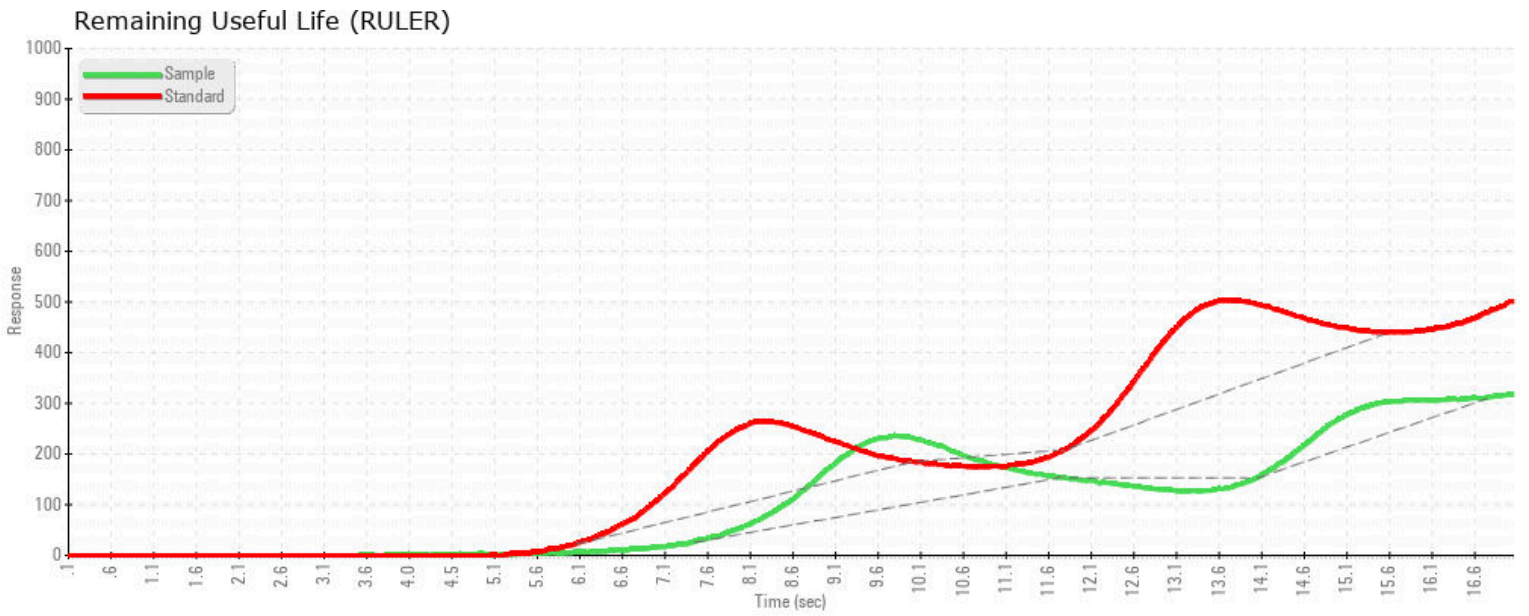
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647			332	28211	843
Particles >6µm	ASTM D7647	>640		86	8212	155
Particles >14µm	ASTM D7647	>80		10	657	8
Particles >21µm	ASTM D7647	>20		3	133	1
Particles >38µm	ASTM D7647	>4		0	5	0
Particles >71µm	ASTM D7647	>3		0	0	0
Oil Cleanliness	ISO 4406 (c)	>--/16/13		16/14/10	22/20/17	17/14/10

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*		4.0	4.2	3.7
Acid Number (AN)	mg KOH/g	ASTM D974*	0.04	0.10	0.08	0.07
Anti-Oxidant 1	%	ASTM D6971*	<25	98	81	98
Anti-Oxidant 2	%	ASTM D6971*	<25	27	44	36
MPC Varnish Potential	Scale	ASTM D7843(m)*	>15	7	8	10

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*	>0.03	NEG	.2%	NEG
Free Water	scalar	Visual*		NEG	1%	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	34.0	33.5	33.6	33.7
Visc @ 100°C	cSt	ASTM D7279(m)	5.59	5.6	5.5	5.6
Viscosity Index (VI)	Scale	ASTM D2270*	110	104	98	103

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						
MPC						



MPC (Varnish Test)



Sample Color & Clarity



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