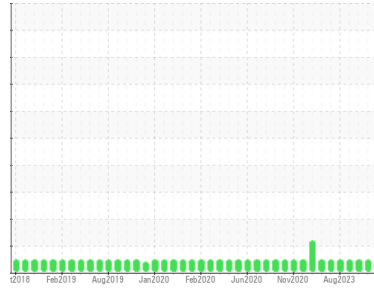


Area
Aft Machinery Space
Machine Id
Compressor Service Air (A) - Crank Case (S/N Sample Tag KA-63201A-S1)
Component
Centrifugal Compressor
Fluid
PETRO CANADA TURBOFLO XL32 (189 LTR)



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	23 Jan 2024	04 Nov 2023	06 Oct 2023
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	NORMAL

WEAR METALS method limit/base current history1 history2

PQ	ASTM D8184*		0	0	0
Iron	ppm ASTM D5185(m)	>50	3	3	4
Chromium	ppm ASTM D5185(m)	>10	0	0	0
Nickel	ppm ASTM D5185(m)		0	0	<1
Titanium	ppm ASTM D5185(m)		0	0	0
Silver	ppm ASTM D5185(m)		0	<1	<1
Aluminum	ppm ASTM D5185(m)	>25	<1	0	0
Lead	ppm ASTM D5185(m)	>25	<1	<1	0
Copper	ppm ASTM D5185(m)	>50	<1	<1	<1
Tin	ppm ASTM D5185(m)	>15	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)	0	0	<1	0
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	0
Magnesium	ppm ASTM D5185(m)	0	0	0	0
Calcium	ppm ASTM D5185(m)	0	0	<1	<1
Phosphorus	ppm ASTM D5185(m)	5	14	14	15
Zinc	ppm ASTM D5185(m)	0	2	3	3
Sulfur	ppm ASTM D5185(m)	750	647	606	613
Lithium	ppm ASTM D5185(m)		<1	<1	<1

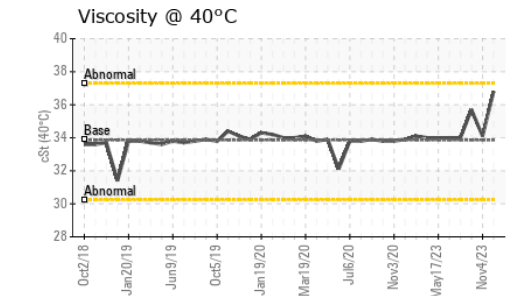
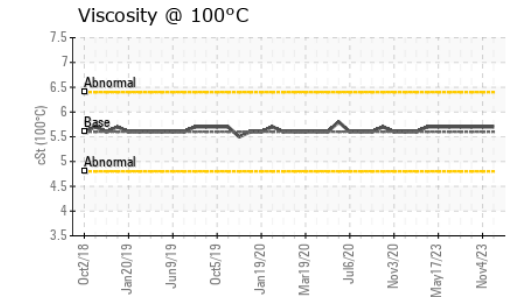
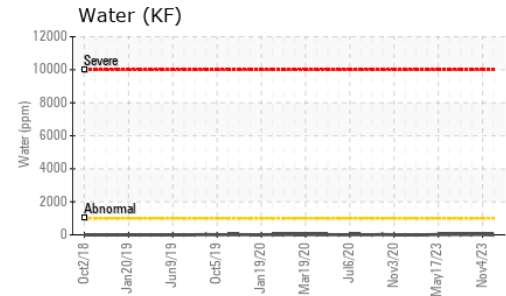
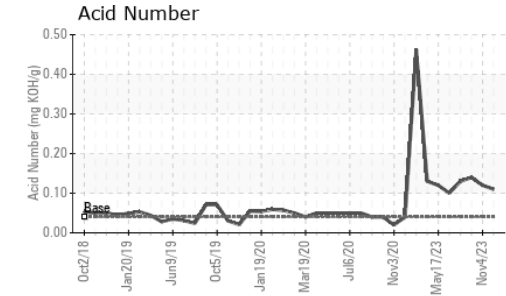
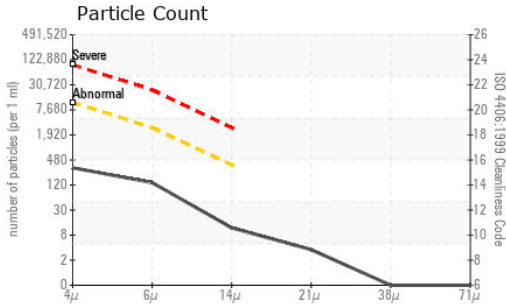
CONTAMINANTS method limit/base current history1 history2

Silicon	ppm ASTM D5185(m)	>25	2	<1	0
Sodium	ppm ASTM D5185(m)		<1	<1	<1
Potassium	ppm ASTM D5185(m)	>20	<1	0	0
Water	% ASTM D6304*	>0.1	0.001	0.002	0.002
ppm Water	ppm ASTM D6304*	>1000	7	20	16.9

FLUID CLEANLINESS method limit/base current history1 history2

Particles >4µm	ASTM D7647	>10000	274	196	300
Particles >6µm	ASTM D7647	>2500	121	70	72
Particles >14µm	ASTM D7647	>320	10	7	8
Particles >21µm	ASTM D7647	>80	3	1	2
Particles >38µm	ASTM D7647	>20	0	0	0
Particles >71µm	ASTM D7647	>4	0	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/15	15/14/10	15/13/10	15/13/10

OIL ANALYSIS REPORT

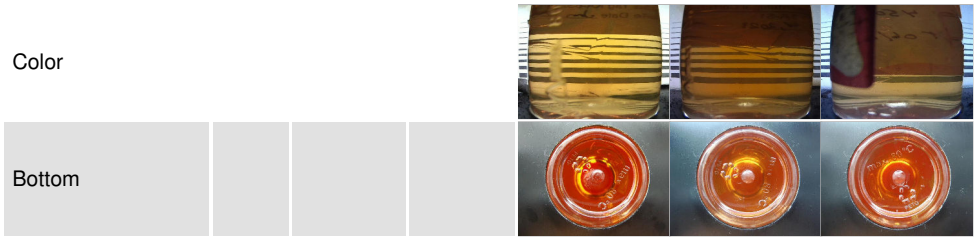


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.04	0.11	0.12	0.14

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*	>0.1	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)	33.86	36.8	34.1	35.7
Visc @ 100°C	cSt	ASTM D7279(m)	5.60	5.7	5.7	5.7
Viscosity Index (VI)	Scale	ASTM D2270*	101	91	106	97

SAMPLE IMAGES



Color

Bottom



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC
Lab Number : **02616264**
Unique Number : 5733374
Test Package : MAR 2 (Additional Tests: KF, KV100, PQ, PrtCount, TAN Man, VI)

Suncor - Terra Nova Projects
 Scotia Centre, 235 Water Strret
 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.