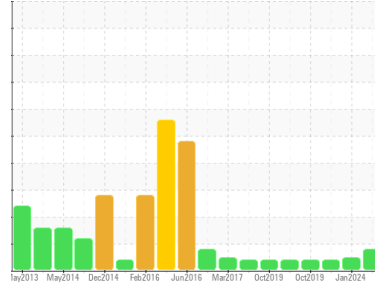




Area
Gas Compression [300231720]
Machine Id
Methanol Wellhead Injection Pump C - Gearbox (S/N Sample Tag PD-42010C-S1)
Component
Gearbox
Fluid
PETRO CANADA ENDURATEX SYNTHETIC EP 220 (120 LTR)



DIAGNOSIS

Recommendation
We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is a light amount of silt (particulates < 14 microns in size) present in the oil.

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	PC0076323	PC	PC
Sample Date	Client Info	09 Jan 2024	08 Jan 2024	24 Apr 2020
Machine Age	hrs	0	0	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ATTENTION	NORMAL	ATTENTION

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	0	6
Iron	ppm ASTM D5185(m) >150	2	<1	1
Chromium	ppm ASTM D5185(m) >10	0	0	0
Nickel	ppm ASTM D5185(m) >10	<1	<1	0
Titanium	ppm ASTM D5185(m)	0	0	0
Silver	ppm ASTM D5185(m)	0	0	0
Aluminum	ppm ASTM D5185(m) >5	<1	<1	0
Lead	ppm ASTM D5185(m) >65	0	0	<1
Copper	ppm ASTM D5185(m) >80	2	<1	1
Tin	ppm ASTM D5185(m) >8	0	0	0
Antimony	ppm ASTM D5185(m) >5	0	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

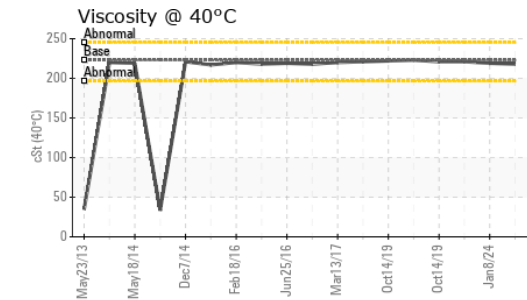
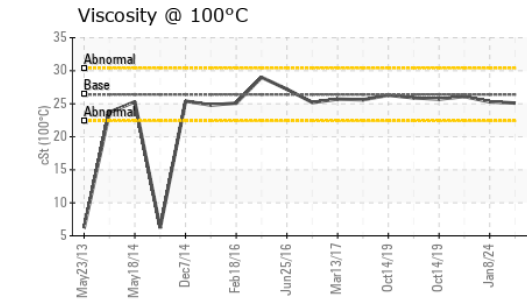
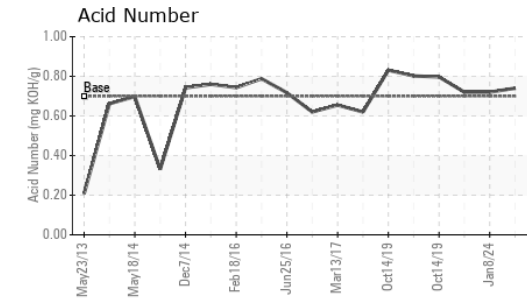
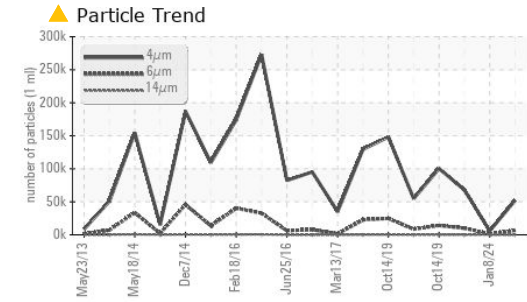
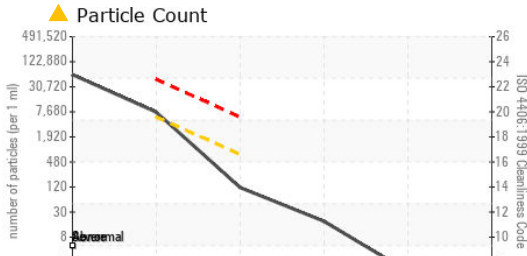
ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 33	37	33	36
Barium	ppm ASTM D5185(m) 5	<1	0	0
Molybdenum	ppm ASTM D5185(m)	0	0	0
Manganese	ppm ASTM D5185(m)	0	0	0
Magnesium	ppm ASTM D5185(m) 5	<1	<1	<1
Calcium	ppm ASTM D5185(m) 5	<1	<1	<1
Phosphorus	ppm ASTM D5185(m) 437	388	393	420
Zinc	ppm ASTM D5185(m) 5	2	2	<1
Sulfur	ppm ASTM D5185(m) 5000	5769	5706	5047
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

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

OIL ANALYSIS REPORT



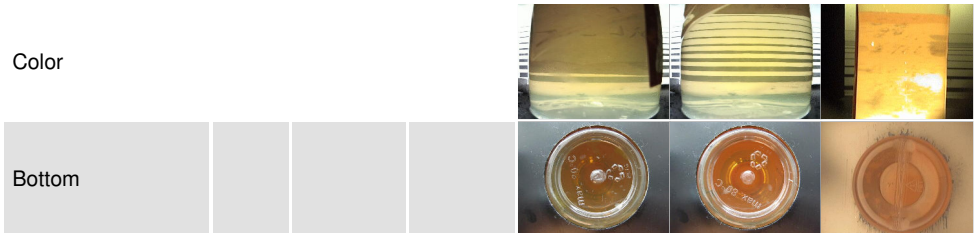
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		52088	5802	68111
Particles >6µm	ASTM D7647	>5000	▲ 6553	1136	▲ 9988
Particles >14µm	ASTM D7647	>640	103	79	223
Particles >21µm	ASTM D7647	>160	16	24	45
Particles >38µm	ASTM D7647	>40	1	9	0
Particles >71µm	ASTM D7647	>10	1	7	0
Oil Cleanliness	ISO 4406 (c)	>--/19/16	▲ 23/20/14	20/17/13	▲ 23/20/15

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D974*	0.7	0.74	0.72	0.72

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D7279(m)	223	218	219	221
Visc @ 100°C	cSt ASTM D7279(m)	26.39	25.1	25.3	26.1
Viscosity Index (VI)	Scale ASTM D2270*	151	145	146	150

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

Bottom



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0076323 **Received** : 25 Jan 2024
Lab Number : **02611250** **Diagnosed** : 26 Jan 2024
Unique Number : 5720345 **Diagnostician** : Kevin Marson
Test Package : MAR 2 (Additional Tests: KV100, PQ, PrtCount, TAN Man, 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