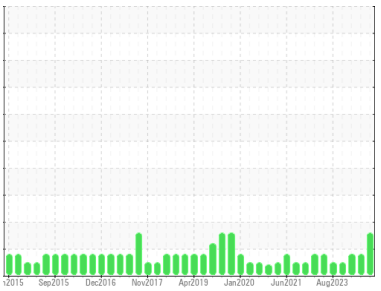
OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Area
Cranes [450335854]
Machine Id
Crane - Mid Ship Distribution Gearbox (S/N Sample Tag MA-04002-S11)
Component
Gearbox
Fluid
PETRO CANADA TRAXON 80W90 (6 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
Viscosity of sample indicates oil is within SAE 75W90 range, advise investigate. 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		**PC0080707**	PC	PC0081067
Sample Date		Client Info		**29 May 2024**	20 Mar 2024	20 Jan 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				**ABNORMAL**	ABNORMAL	ABNORMAL

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

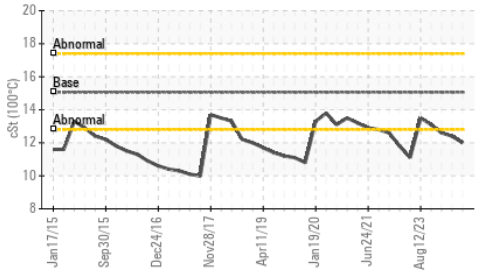
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**0**	0	0
Iron	ppm	ASTM D5185(m)	>150	**6**	5	5
Chromium	ppm	ASTM D5185(m)	>10	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>10	**0**	0	0
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>5	**0**	<1	<1
Lead	ppm	ASTM D5185(m)	>65	**0**	0	0
Copper	ppm	ASTM D5185(m)	>80	**<1**	<1	<1
Tin	ppm	ASTM D5185(m)	>8	**0**	0	0
Antimony	ppm	ASTM D5185(m)	>5	**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)	243	**225**	229	227
Barium	ppm	ASTM D5185(m)	1	**<1**	<1	<1
Molybdenum	ppm	ASTM D5185(m)		**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)	2	**1**	1	<1
Calcium	ppm	ASTM D5185(m)	6	**12**	10	10
Phosphorus	ppm	ASTM D5185(m)	987	**881**	892	926
Zinc	ppm	ASTM D5185(m)	1	**20**	19	18
Sulfur	ppm	ASTM D5185(m)	21530	**15034**	15694	16558
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

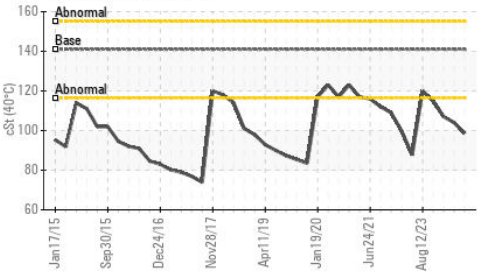
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	**2**	2	3
Sodium	ppm	ASTM D5185(m)		**<1**	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	**<1**	0	<1

OIL ANALYSIS REPORT

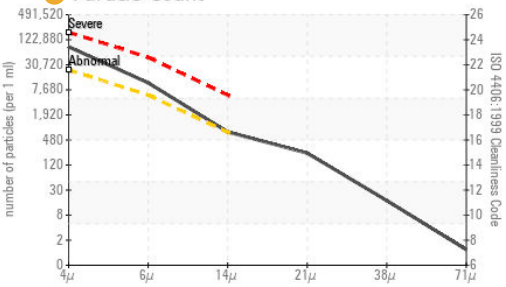
Viscosity @ 100°C



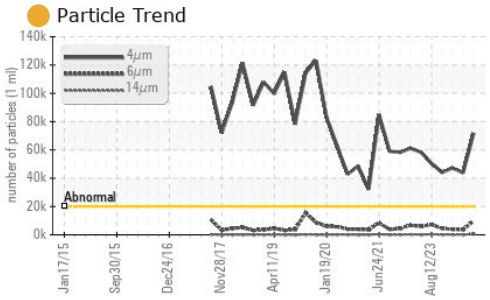
Viscosity @ 40°C



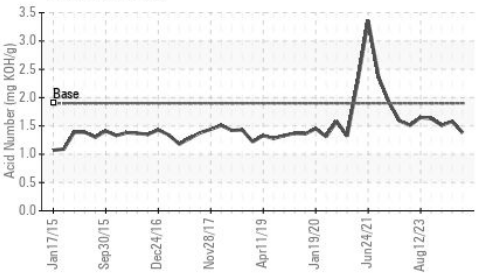
Particle Count



Particle Trend



Acid Number

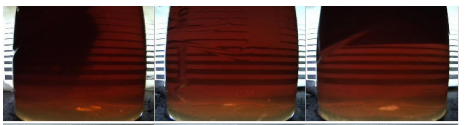


FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	**71692**	43735	47234
Particles >6µm	ASTM D7647	>5000	**9848**	3421	3887
Particles >14µm	ASTM D7647	>640	**659**	85	98
Particles >21µm	ASTM D7647	>160	**204**	15	18
Particles >38µm	ASTM D7647	>40	**15**	1	1
Particles >71µm	ASTM D7647	>10	**1**	1	1
Oil Cleanliness	ISO 4406 (c)	>21/19/16	**23/20/17**	23/19/14	23/19/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	1.9	**1.38**	1.58	1.51

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	**VLITE**	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*	>0.2	**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)	141.0	▲ **98.5**	▲ 104	▲ 107
Visc @ 100°C	cSt	ASTM D7279(m)	15.06	▲ **12.0**	▲ 12.4	▲ 12.6
Viscosity Index (VI)	Scale	ASTM D2270*	108	**112**	111	110

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0080707 **Received** : 30 May 2024
Lab Number : 02638867 **Tested** : 31 May 2024
Unique Number : 5788029 **Diagnosed** : 31 May 2024 - Kevin Marson
Test Package : 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.

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