



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL



Machine Id
CATERPILLAR 320EL 6914 (S/N CAT0320EEWBK03069)
Component
Right Final Drive
Fluid
PETRO CANADA TRAXON 80W90 (15 LTR)

RECOMMENDATION

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. The fluid was specified as PETRO CANADA TRAXON 80W90, however, a fluid match indicates that this fluid is SAE 5W40 Transmission/Drive Train Oil. Please confirm the oil type and grade on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0067886	PC0051474	PC0013046
Sample Date		Client Info		06 Feb 2024	02 Sep 2021	11 Jul 2019
Machine Age	hrs	Client Info		8184	6463	4974
Oil Age	hrs	Client Info		0	500	500
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Not Changed	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>800	439	209	74
Chromium	ppm	ASTM D5185(m)	>10	2	1	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	0
Titanium	ppm	ASTM D5185(m)	>15	4	2	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>75	70	▲ 30	8
Lead	ppm	ASTM D5185(m)	>10	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>75	1	<1	0
Tin	ppm	ASTM D5185(m)	>8	0	<1	0
Vanadium	ppm	ASTM D5185(m)		0	<1	0
White Metal	scalar	Visual*	NONE	NONE	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

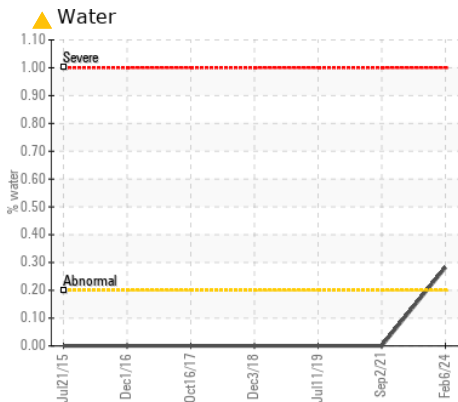
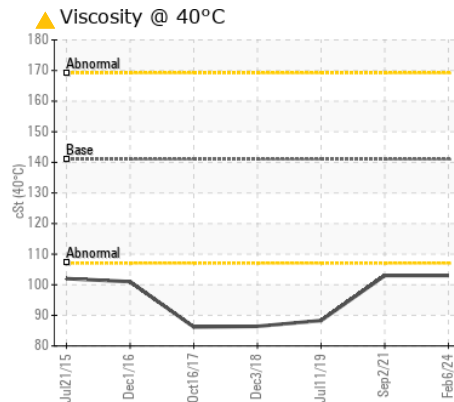
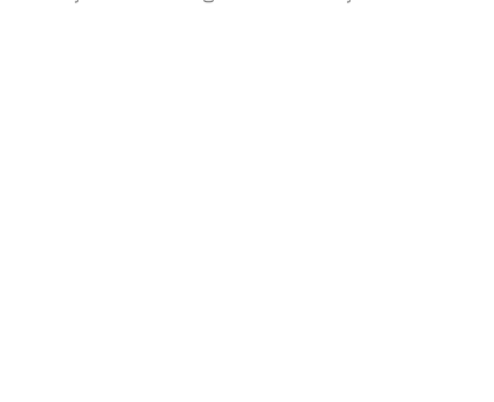
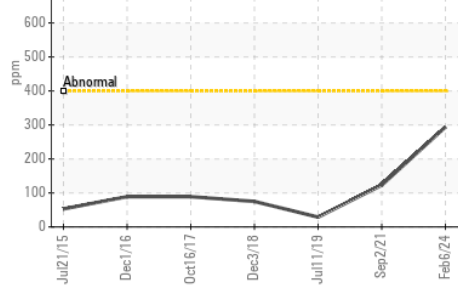
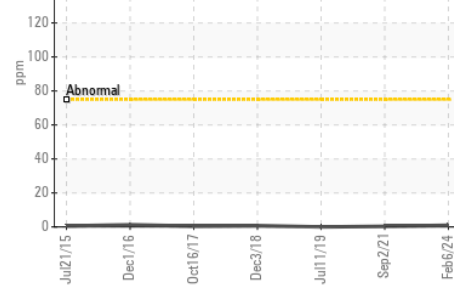
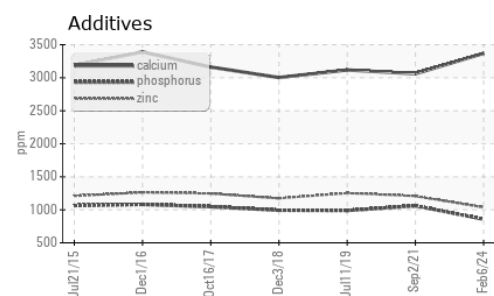
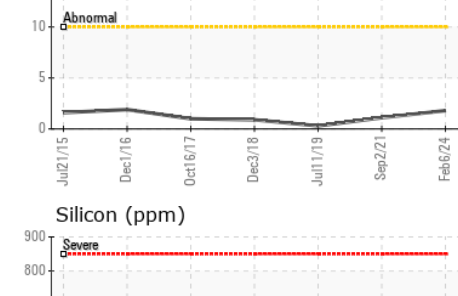
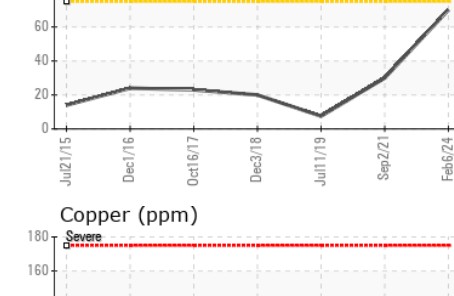
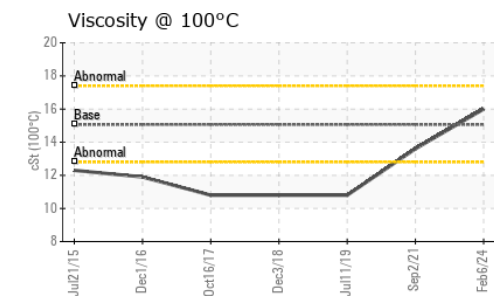
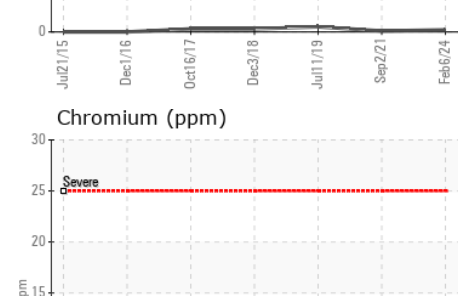
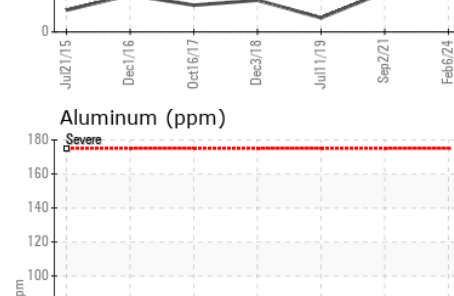
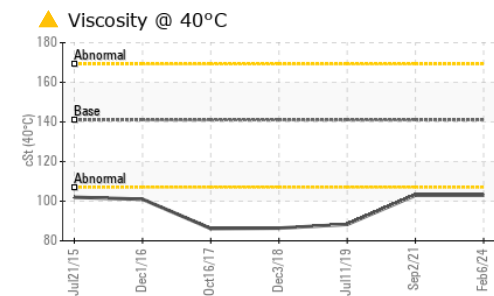
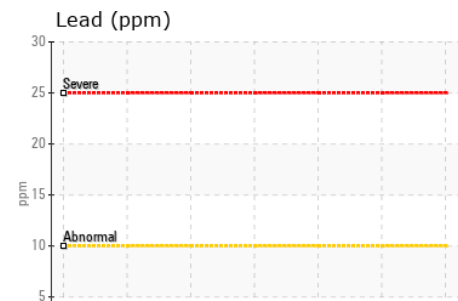
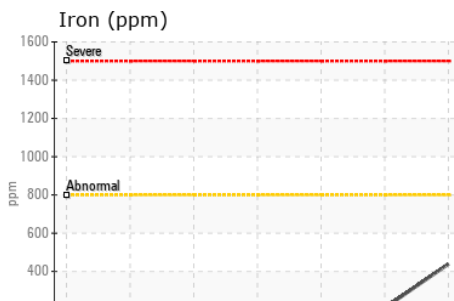
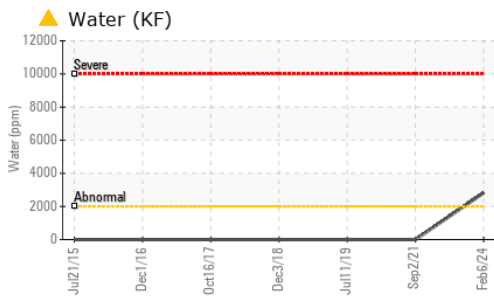
There is a moderate concentration of water present in the oil.

Silicon	ppm	ASTM D5185(m)	>400	294	▲ 123	29
Potassium	ppm	ASTM D5185(m)	>20	23	11	4
Water	%	ASTM D6304*	>0.2	▲ 0.282	---	---
ppm Water	ppm	ASTM D6304*	>2000	▲ 2822	---	---
Silt	scalar	Visual*	NONE	VLITE	VLITE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	VLITE
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	▲ .2%	NEG	NEG

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 5W40 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		17	9	2
Boron	ppm	ASTM D5185(m)	243	3	29	<1
Barium	ppm	ASTM D5185(m)	1	1	<1	0
Molybdenum	ppm	ASTM D5185(m)		<1	<1	<1
Manganese	ppm	ASTM D5185(m)		4	2	<1
Magnesium	ppm	ASTM D5185(m)	2	29	24	14
Calcium	ppm	ASTM D5185(m)	6	3370	3060	3118
Phosphorus	ppm	ASTM D5185(m)	987	857	1060	989
Zinc	ppm	ASTM D5185(m)	1	1037	1208	1253
Sulfur	ppm	ASTM D5185(m)	21530	3107	4160	3725
Visc @ 40°C	cSt	ASTM D7279(m)	141.0	▲ 103	103	88.3
Visc @ 100°C	cSt	ASTM D7279(m)	15.06	16.0	13.6	10.8
Viscosity Index (VI)	Scale	ASTM D2270*	108	▲ 166	131	106



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0067886
Lab Number : 02616774
Unique Number : 5733884
Test Package : MOB 1 (Additional Tests: KF, KV100, VI)

TRUCK AND EQUIPMENT SOLUTION
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 MIDHURST, ON
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 T: (705)792-7620
 F: (705)725-5425

Received : 20 Feb 2024
 Tested : 21 Feb 2024
 Diagnosed : 21 Feb 2024 - Kevin Marson
 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.