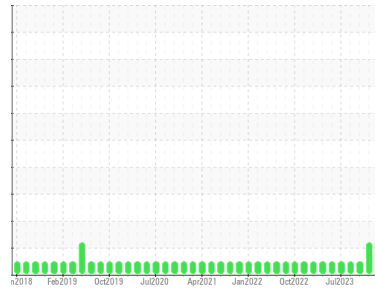




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
ALLISON 236
 Component
Rear Transmission (Auto)
 Fluid
CASTROL TRANSYND (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the fluid.

Fluid Condition

The AN level is acceptable for this fluid. The fluid is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0889182	WC0866609	WC0866457
Sample Date	Client Info			28 Dec 2023	14 Dec 2023	18 Oct 2023
Machine Age	kms	Client Info		0	0	0
Oil Age	kms	Client Info		28744	9306	20050
Oil Changed	Client Info			Not Changed	Not Changed	Not Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.1	NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>230	40	38	40
Chromium	ppm	ASTM D5185(m)	>2	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	0	<1	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>5	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>65	7	7	6
Lead	ppm	ASTM D5185(m)	>55	<1	2	<1
Copper	ppm	ASTM D5185(m)	>85	5	6	5
Tin	ppm	ASTM D5185(m)	>5	<1	<1	<1
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

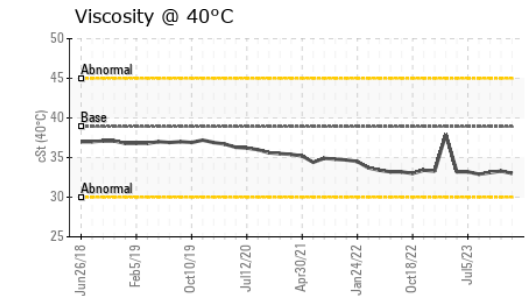
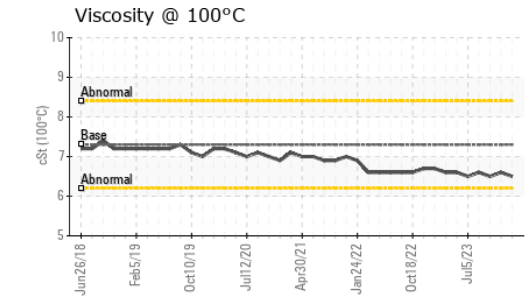
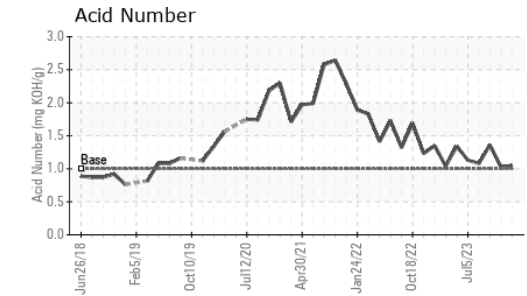
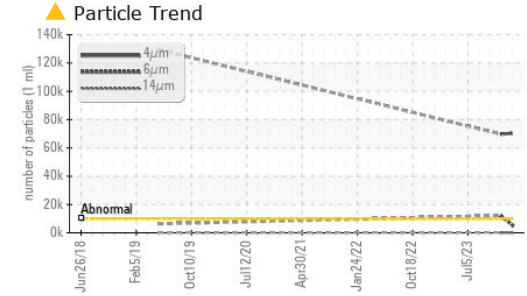
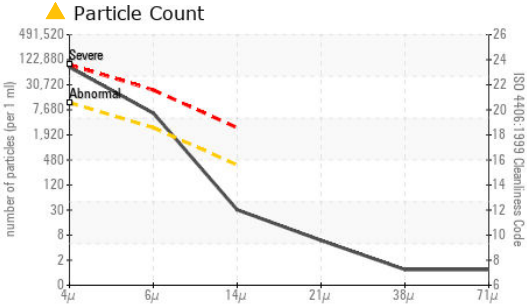
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	150	70	77	74
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	0	1	1	<1
Calcium	ppm	ASTM D5185(m)	40	131	127	123
Phosphorus	ppm	ASTM D5185(m)	320	233	241	231
Zinc	ppm	ASTM D5185(m)	5	5	3	3
Sulfur	ppm	ASTM D5185(m)	1050	1623	1603	1516
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	4	4	4
Sodium	ppm	ASTM D5185(m)		3	3	3
Potassium	ppm	ASTM D5185(m)	>20	<1	2	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ 70351	▲ 69648	---
Particles >6µm		ASTM D7647	>2500	▲ 5596	▲ 12084	---
Particles >14µm		ASTM D7647	>320	27	170	---
Particles >21µm		ASTM D7647	>80	5	16	---
Particles >38µm		ASTM D7647	>20	1	0	---
Particles >71µm		ASTM D7647	>4	1	0	---
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ 23/20/12	▲ 23/21/15	---



OIL ANALYSIS REPORT

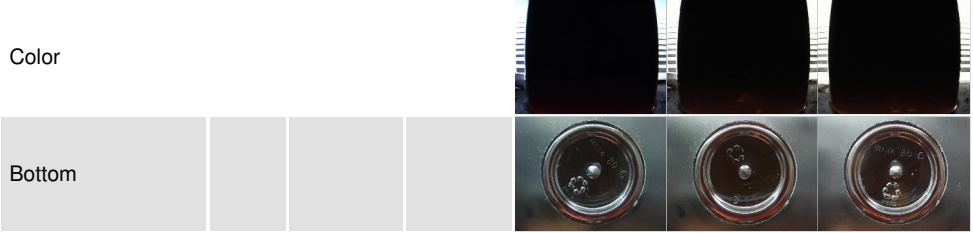


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	1.0	1.05	1.03	1.36

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)	38.9	33.0	33.3	33.1
Visc @ 100°C	cSt	ASTM D7279(m)	7.3	6.5	6.6	6.5
Viscosity Index (VI)	Scale	ASTM D2270*	168	154	158	154

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0889182 **Received** : 12 Jan 2024
Lab Number : **02608597** **Diagnosed** : 16 Jan 2024
Unique Number : 5709683 **Diagnostician** : Wes Davis
Test Package : MOB 2 (Additional Tests: KV100, PrtCount, VI)

CITY OF THUNDER BAY
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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.