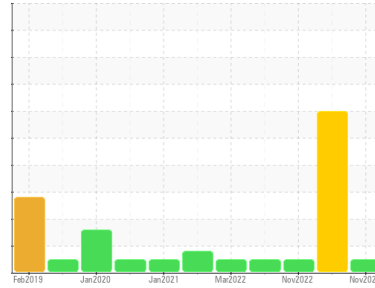




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
3000 Series
 Machine Id
Navistar 3817T
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (26 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0817321	WC0828287	WC0748800
Sample Date	Client Info			25 Nov 2023	12 Jun 2023	20 Nov 2022
Machine Age	mls	Client Info		208279	187054	166683
Oil Age	mls	Client Info		21222	20371	20108
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	SEVERE	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>3.0	<1.0	<1.0	<1.0
Water	WC Method		>0.2	NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	46	27	37
Chromium	ppm	ASTM D5185(m)	>5	2	2	1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>15	6	4	10
Lead	ppm	ASTM D5185(m)	>25	3	7	0
Copper	ppm	ASTM D5185(m)	>100	102	266	3
Tin	ppm	ASTM D5185(m)	>4	0	0	<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

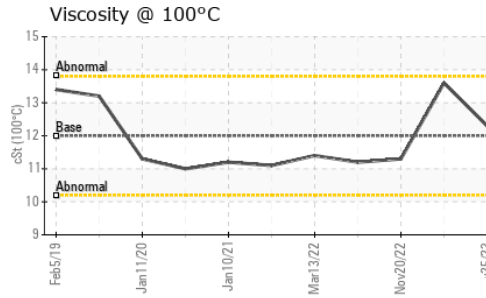
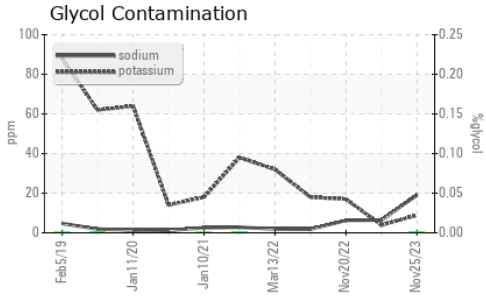
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2	3	19	2
Barium	ppm	ASTM D5185(m)	0	<1	4	0
Molybdenum	ppm	ASTM D5185(m)	50	58	49	58
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	875	826	942
Calcium	ppm	ASTM D5185(m)	1050	1027	1161	1099
Phosphorus	ppm	ASTM D5185(m)	995	778	743	1019
Zinc	ppm	ASTM D5185(m)	1180	1090	835	1187
Sulfur	ppm	ASTM D5185(m)	2600	2024	1714	2478
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	6	6	5
Sodium	ppm	ASTM D5185(m)		19	6	6
Potassium	ppm	ASTM D5185(m)	>20	9	4	17
Glycol	%	ASTM D7922*		0.0	NEG	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	0.8	0.4	0.5
Nitration	Abs/cm	ASTM D7624*	>20	13.3	12.8	11.3
Sulfation	Abs./1mm	ASTM D7415*	>30	25.0	22.7	23.3



OIL ANALYSIS REPORT

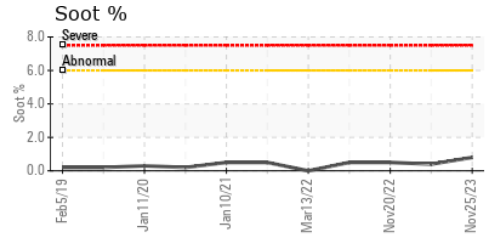
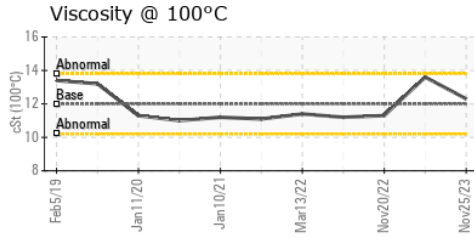
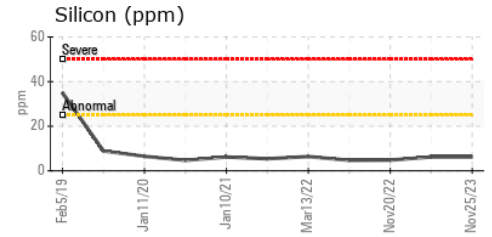
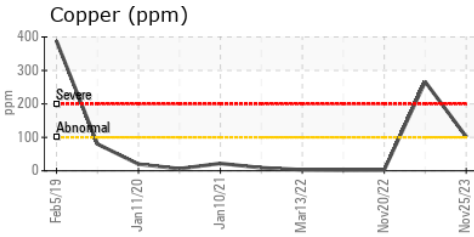
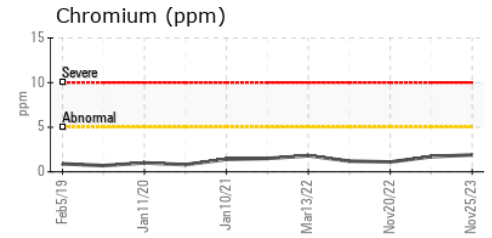
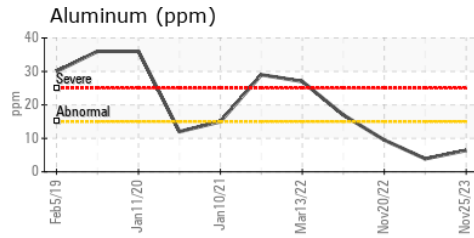
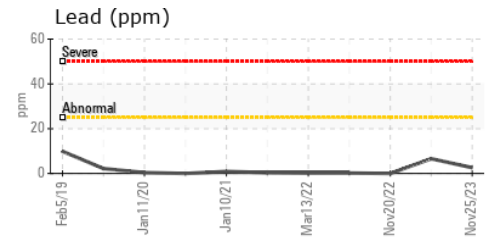
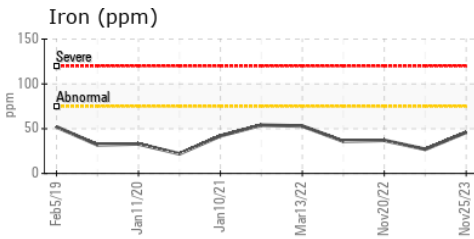


FLUID DEGRADATION	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	23.9	23.3	20.8

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	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 @ 100°C	cSt	ASTM D7279(m)	12.00	12.3	13.6	11.3

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **MANITOULIN TRANSPORT (GARAGE)**
Sample No. : WC0817321 **Received** : 05 Dec 2023 1335 SHAWSON DRIVE
Lab Number : 02600879 **Diagnosed** : 05 Dec 2023 MISSISSAUGA, ON
Unique Number : 5693964 **Diagnostician** : Wes Davis CA L4W 1C4
Test Package : MOB 1 (Additional Tests: Glycol, Visual)
 Contact: Travis Spence
 tspence@manitoulintransport.com
 T:
 F: (905)564-6361

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.