

OIL ANALYSIS REPORT

Area 52000 series Machine Id Navistar 52830

Diesel Engine

PETRO CANADA DURON SHP 10W30 (40 LTR)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

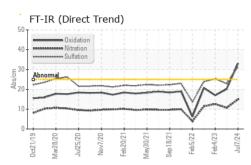
The oil is no longer serviceable due to the presence of contaminants.

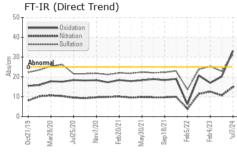
_TR)		let2019 Mar20:	20 Jul2020 Nov2020 Feb2	021 May2021 Sep2021 Feb2022 Fe	52023 Jul2024	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0948294	WC0828303	WC0771283
Sample Date		Client Info		07 Jul 2024	01 Jul 2023	04 Feb 2023
Machine Age	mls	Client Info		613951	585439	554998
Oil Age	mls	Client Info		28512	30140	33052
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>90	62	25	29
Chromium	ppm	ASTM D5185(m)	>20	4	2	1
Nickel	ppm	ASTM D5185(m)	>2	<1	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	17	8	7
Lead	ppm	ASTM D5185(m)	>40	7	2	<1
Copper	ppm	ASTM D5185(m)	>330	2	2	2
Tin	ppm	ASTM D5185(m)	>15	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)	2	2	2	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	59	61	65
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	950	946	1022	1025
Calcium	ppm	ASTM D5185(m)	1050	1041	1073	1172
Phosphorus	ppm	ASTM D5185(m)	995	993	1079	1154
Zinc	ppm	ASTM D5185(m)	1180	1169	1239	1290
Sulfur	ppm	ASTM D5185(m)	2600	2271	2444	2773
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINANTS	6	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	5	3	7
Sodium	ppm	ASTM D5185(m)		3	2	3
Potassium	ppm	ASTM D5185(m)	>20	1	<1	7
Fuel	%	ASTM D7593*	>3.0	<mark>人</mark> 5.5	<1.0	<1.0
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	1.4	0.4	2.1
Nitration	Abs/cm	ASTM D7624*	>20	14.9	10.7	12.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	31.4	22.9	25.3

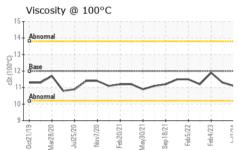
Sample Rating Trend



OIL ANALYSIS REPORT







FLUID [DEG	RAD		NC	m	etho	d	limit/ba	ase		curre	ent		his	tory1		hi	story	/2	
Oxidation		Abs/.1mm		ASTM D7414*		14*	>25		33.1				20.1			17.0				
VISUAL					method			limit/base		current				his	tory1		history2			
Nhite Met	tal		SC	alar	alar Visual*			NONE		V	LITE									
ellow Me	etal		SC	calar	Vis	ual*		NONE		V	LITE									
recipitate	Э		SC	calar	Vis	ual*		NONE		N	ONE									
Silt			SC	calar	Vis	ual*		NONE		N	ONE									
Debris			SC	calar		ual*		NONE			ONE									
Sand/Dirt				calar		ual*		NONE			ONE									
Appearan	се			calar		ual*		NORML			ORN									
Odor scalar			Visual*		NORML		NORML				NOR			NORML						
Emulsified Water scale						>0.2		NEG NEG			NEG				NEG					
Free Wate				calar						N	EG			NEG			NE	G		
FLUID F		PER				letho		limit/ba	ase		<u>curre</u>	ent			tory1			story	/2	
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0ct21/19 Mar28/20	Jul25/20	Nov7/20	Feb20/21	May30/21	Sep18/21	Feb5/22	Feb4/23	Jul7/24		0ct21/19	Mar28/20	Jul25/20	Nov7/20	Feb20/21	May30/21	Sep18/21	Feb5/22	Feb4/23		
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Abnormal Base Abnormal	Jul25/20	Nov7/20	Feb20/21	May30/21	Sep18/21	Feb5/22	Feb4/23 -	Jul7/24	0.0	0ct21/19	Mar28/20	Jul25/20	Nov7/20	Feb20/21	May30/21	Sep18/21	Feb5/22	Feb4/23		

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 MANITOULIN TRANSPORT (GARAGE) Laboratory CALA Sample No. : WC0948294 Received : 09 Jul 2024 1335 SHAWSON DRIVE Lab Number : 02646539 Tested : 11 Jul 2024 MISSISSAUGA, ON ISO 17025:2017 Accredited Laboratory Unique Number : 5812091 Diagnosed : 11 Jul 2024 - Kevin Marson Test Package : MOB 1 (Additional Tests: FUELDILUTION, PercentFuel, Visual) Contact: Travis Spence To discuss this sample report, contact Customer Service at 1-800-268-2131. tspence@manitoulintransport.com Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. F: (905)564-6361 Validity of results and interpretation are based on the sample and information as supplied.

Report Id: MANMIS [WCAMIS] 02646539 (Generated: 07/11/2024 08:36:01) Rev: 1

Contact/Location: Travis Spence - MANMIS Page 2 of 2

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