



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Area

5C07

Machine Id

GREAT DANE FROZEN RTR6313 - TK (S/N 1J9TT5346KA194101)

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ARI06147020	ARI05356853	ARI05076316
Sample Date		Client Info		11 Apr 2024	22 Sep 2021	28 Sep 2020
Machine Age	hrs	Client Info		5600	4934	2239
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	24	22	7
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		2	35	64
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	<1	5	<1
Lead	ppm	ASTM D5185m	>40	0	1	<1
Copper	ppm	ASTM D5185m	>330	<1	2	1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

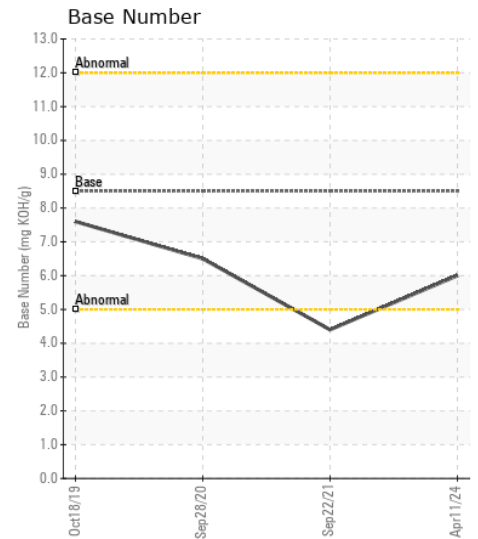
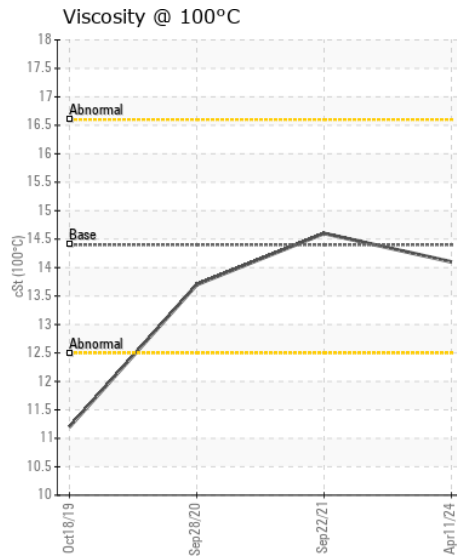
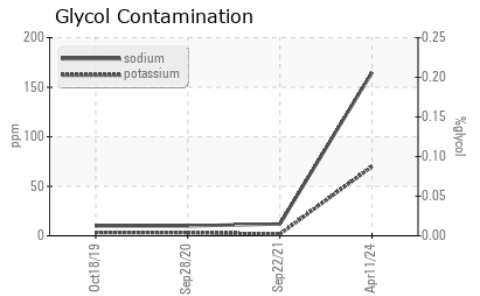
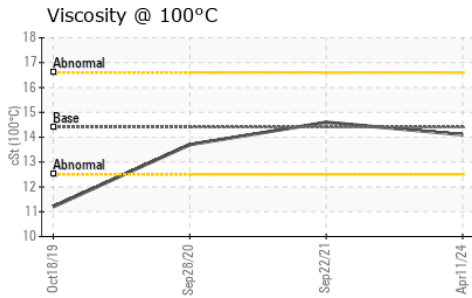
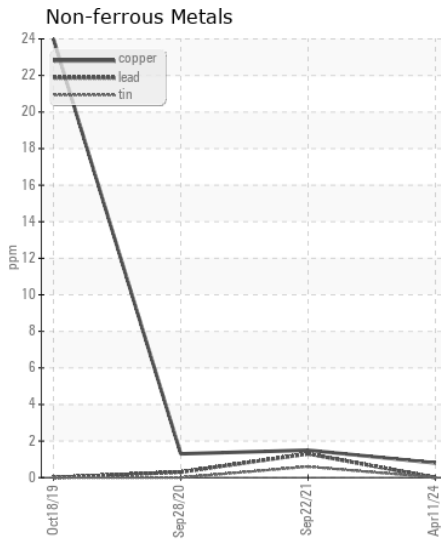
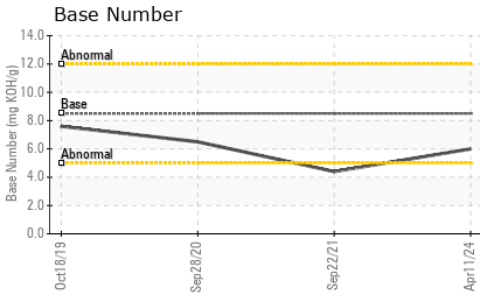
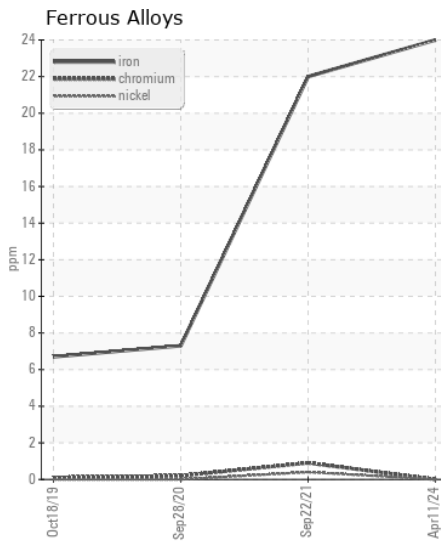
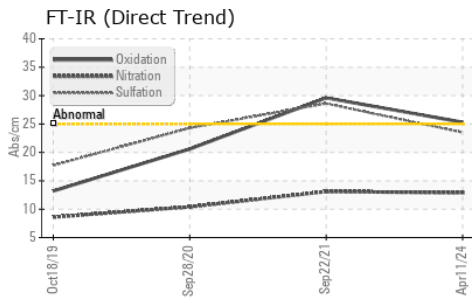
Sodium and/or potassium levels are high.

Silicon	ppm	ASTM D5185m	>25	3	10	8
Potassium	ppm	ASTM D5185m	>20	▲ 70	2	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	12.9	13.1	10.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.5	28.6	24.3
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>216	▲ 165	12	10
Boron	ppm	ASTM D5185m	250	6	47	123
Barium	ppm	ASTM D5185m	10	0	0	<1
Molybdenum	ppm	ASTM D5185m	100	66	95	42
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	450	1020	576	439
Calcium	ppm	ASTM D5185m	3000	1340	1760	1552
Phosphorus	ppm	ASTM D5185m	1150	1123	880	883
Zinc	ppm	ASTM D5185m	1350	1344	1147	1052
Sulfur	ppm	ASTM D5185m	4250	3840	2952	2809
Oxidation	Abs/.1mm	*ASTM D7414	>25	25.3	29.6	20.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.0	4.4	6.5
Visc @ 100°C	cSt	ASTM D445	14.4	14.1	14.6	13.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ARI06147020 **Received** : 12 Apr 2024
Lab Number : 06147020 **Tested** : 16 Apr 2024
Unique Number : 10977098 **Diagnosed** : 16 Apr 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: Glycol, TBN)

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To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)