



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
MIGHTY GIANT 21-716

Component
Diesel Engine

Fluid
TRC MOLY XL PRO-SPEC IV XP 15W40 (16 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06157131	TR06110378	TR06006556
Sample Date		Client Info		16 Apr 2024	06 Feb 2024	03 Nov 2023
Machine Age	hrs	Client Info		2904	2598	2170
Oil Age	hrs	Client Info		306	525	97
Filter Age	hrs	Client Info		306	525	97
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	46	62	7
Chromium	ppm	ASTM D5185m	>20	1	2	0
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	4	4	2
Lead	ppm	ASTM D5185m	>40	5	3	0
Copper	ppm	ASTM D5185m	>330	3	13	7
Tin	ppm	ASTM D5185m	>15	2	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

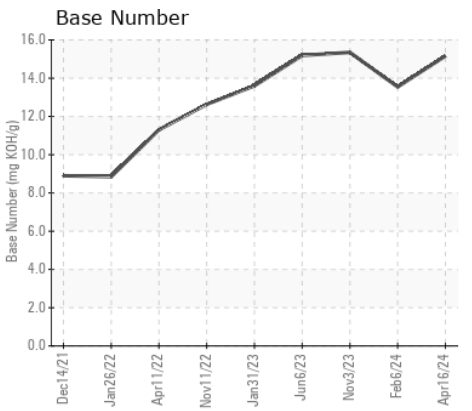
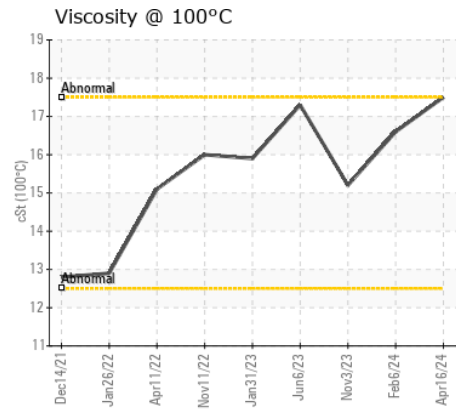
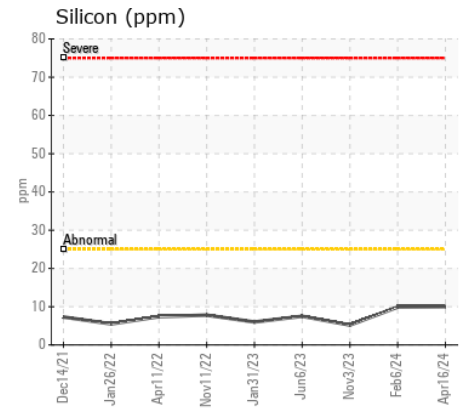
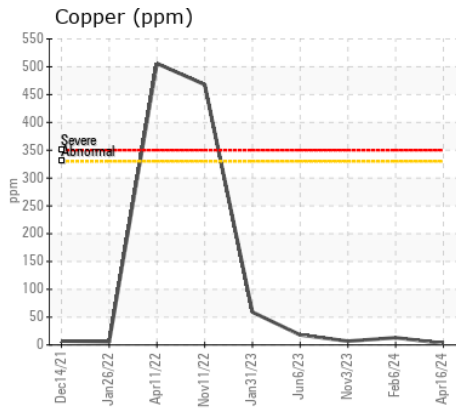
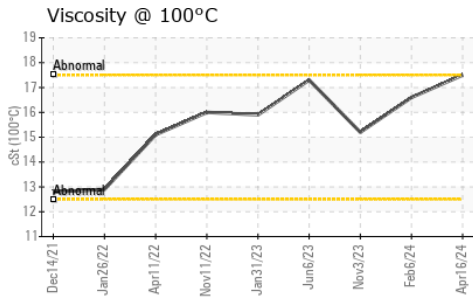
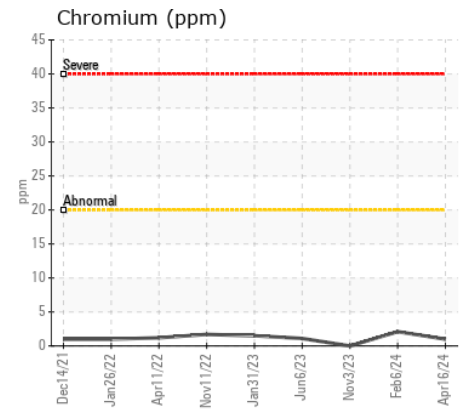
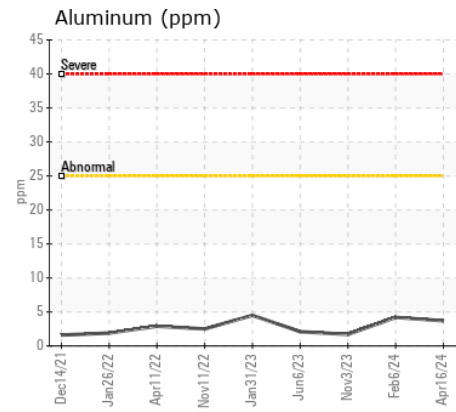
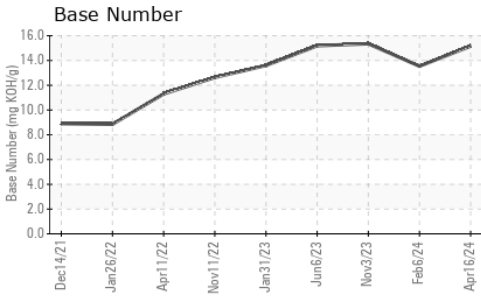
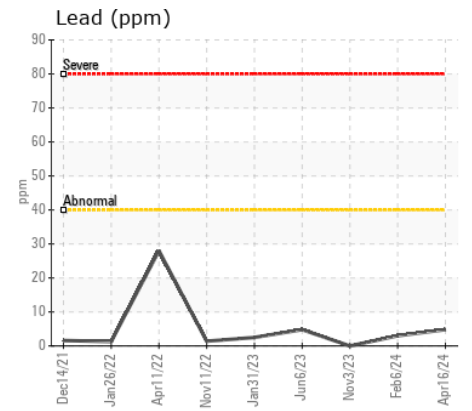
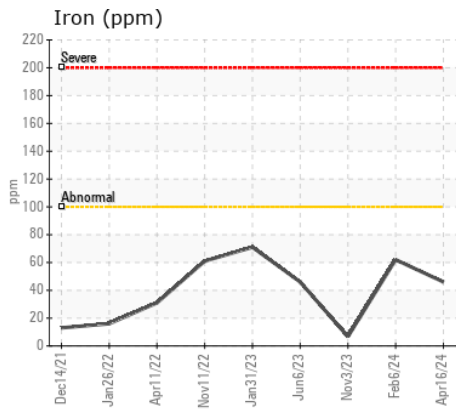
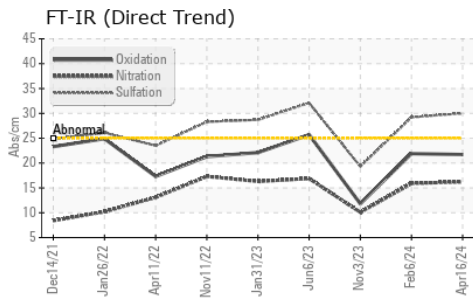
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	10	10	5
Potassium	ppm	ASTM D5185m	>20	<1	4	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.6	0.2
Nitration	Abs/cm	*ASTM D7624	>20	16.2	15.9	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.0	29.2	19.3
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. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	9	11
Boron	ppm	ASTM D5185m		8	0	6
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		167	147	124
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		33	24	40
Calcium	ppm	ASTM D5185m		6055	5165	4420
Phosphorus	ppm	ASTM D5185m		1174	992	948
Zinc	ppm	ASTM D5185m		1355	1213	1118
Sulfur	ppm	ASTM D5185m		5858	4930	4573
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.7	21.9	11.8
Base Number (BN)	mg KOH/g	ASTM D2896		15.16	13.54	15.35
Visc @ 100°C	cSt	ASTM D445		17.5	16.6	15.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06157131
Lab Number : 06157131
Unique Number : 10992554
Test Package : MOB 2
Received : 22 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 25 Apr 2024 - Jonathan Hester

BEGGER ENTERPRISES LLC
 5126 VALLEY DRIVE EAST
 MILES CITY, MT
 US 59301
 Contact: KELLY ZIETLOW

To discuss this sample report, contact Customer Service at 1-800-827-0711.
 * - 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)

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