



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
DODGE 2C4RDGEG4ER146344
 Component
Gasoline Engine
 Fluid
TRC PRO-SPEC SYNTHETIC 5W30 (5 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06074152	TR06055059	TR05902920
Sample Date		Client Info		15 Jan 2024	24 Oct 2023	13 Jul 2023
Machine Age	mls	Client Info		233000	228974	223476
Oil Age	mls	Client Info		3000	5000	4000
Filter Age	mls	Client Info		3000	5000	4000
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	9	10	17
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>40	2	3	3
Lead	ppm	ASTM D5185m	>50	0	<1	<1
Copper	ppm	ASTM D5185m	>155	2	3	4
Tin	ppm	ASTM D5185m	>10	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

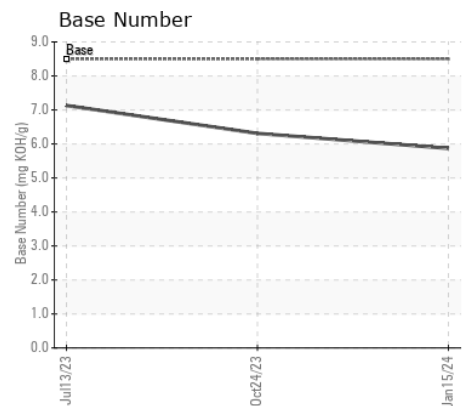
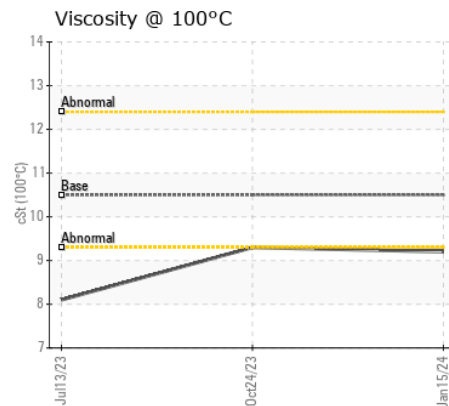
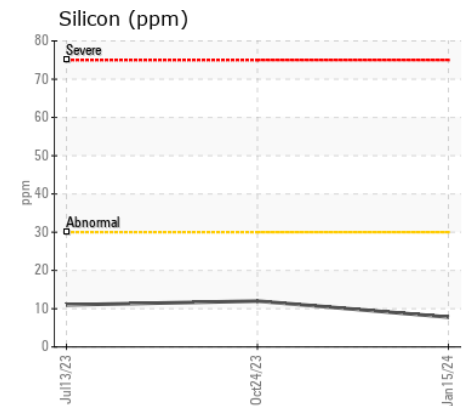
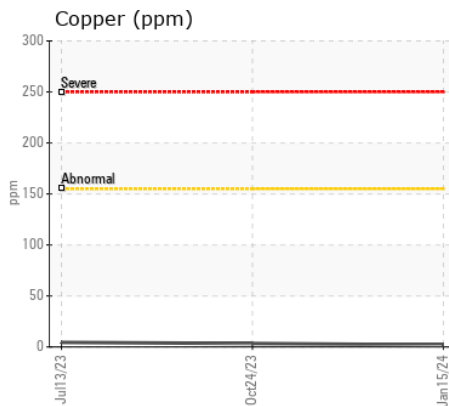
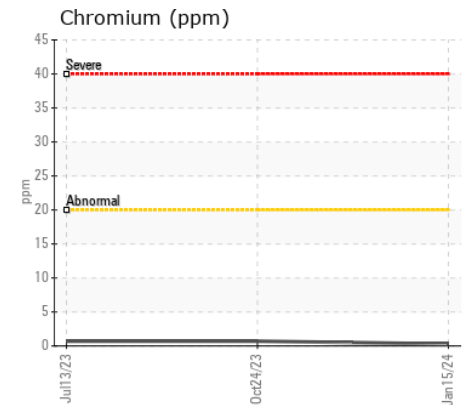
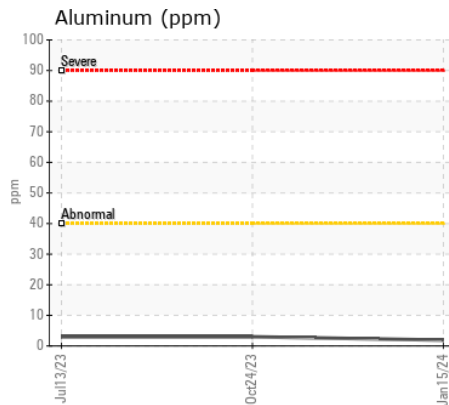
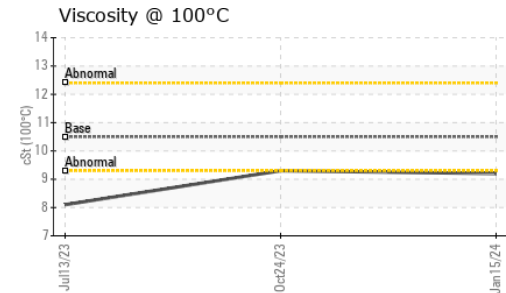
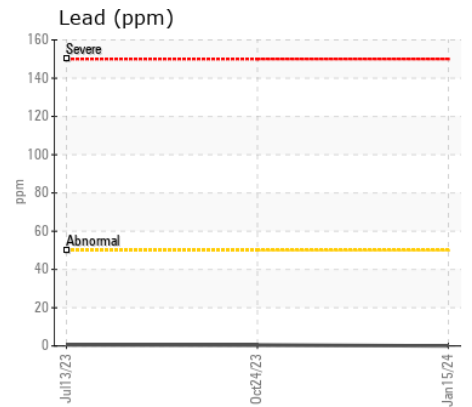
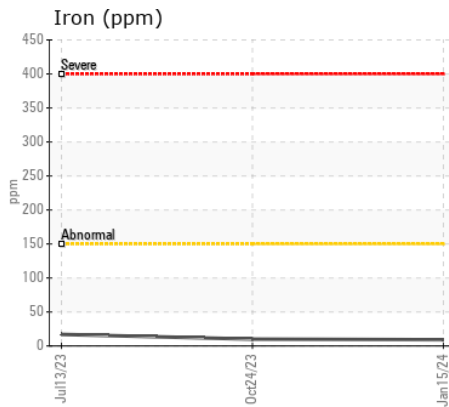
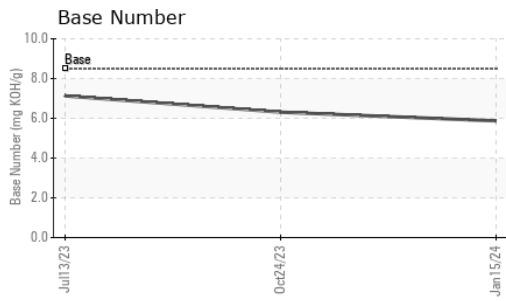
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	8	12	11
Potassium	ppm	ASTM D5185m	>20	2	2	2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	8.9	9.2	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.7	17.7	17.1
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	>400	0	2	2
Boron	ppm	ASTM D5185m		61	55	43
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m	400	155	168	92
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m	600	446	567	462
Calcium	ppm	ASTM D5185m	1500	1292	1515	1238
Phosphorus	ppm	ASTM D5185m	800	606	746	719
Zinc	ppm	ASTM D5185m	900	802	992	847
Sulfur	ppm	ASTM D5185m		2061	2840	2634
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.1	11.7	10.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.87	6.31	7.13
Visc @ 100°C	cSt	ASTM D445	10.5	9.2	9.3	8.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06074152 **Received** : 30 Jan 2024
Lab Number : 06074152 **Diagnosed** : 31 Jan 2024
Unique Number : 10856243 **Diagnostician** : Wes Davis
Test Package : MOB 2

HARLAN MUNNING
 212 COUNTY RD 1
 MT LAKE, MN
 US 56159
 Contact: HARLAN MUNNING

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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F: