TRAAP
Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
DODGE DODGE RAM HEMI
Component
Diesel Engine
Fluid
TRC PRO-SPEC III SYNTHETIC BLEND 15W40 (7 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

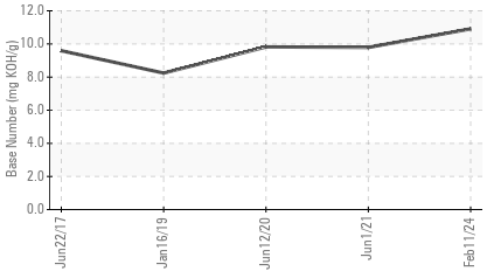
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

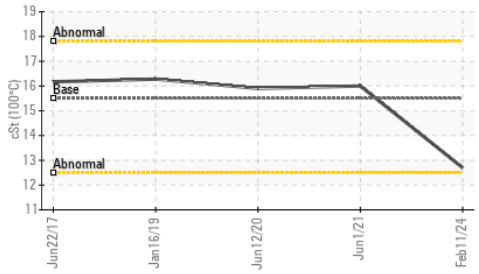
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06104522	TR05268222	TR05010681
Sample Date		Client Info		11 Feb 2024	01 Jun 2021	12 Jun 2020
Machine Age	mls	Client Info		17762	85950	75625
Oil Age	mls	Client Info		12500	7900	8000
Filter Age	mls	Client Info		12500	7900	8000
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	124	22	17
Chromium	ppm	ASTM D5185m	>20	2	1	1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	56	6	4
Lead	ppm	ASTM D5185m	>40	2	1	0
Copper	ppm	ASTM D5185m	>330	82	12	17
Tin	ppm	ASTM D5185m	>15	2	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	20	10	6
Potassium	ppm	ASTM D5185m	>20	158	4	10
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	1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	12.8	16.7	13.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.5	34.2	31.9
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
Sodium	ppm	ASTM D5185m		6	6	5
Boron	ppm	ASTM D5185m		5	4	<1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		12	1	3
Manganese	ppm	ASTM D5185m		2	<1	<1
Magnesium	ppm	ASTM D5185m		263	21	14
Calcium	ppm	ASTM D5185m		4446	4816	4625
Phosphorus	ppm	ASTM D5185m		993	914	1124
Zinc	ppm	ASTM D5185m		1330	1158	1296
Sulfur	ppm	ASTM D5185m		3751	3780	4078
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.8	24.5	23.1
Base Number (BN)	mg KOH/g	ASTM D2896		10.91	9.79	9.82
Visc @ 100°C	cSt	ASTM D445	15.5	12.7	16.0	15.9

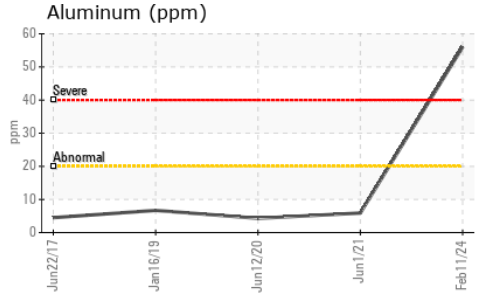
Base Number



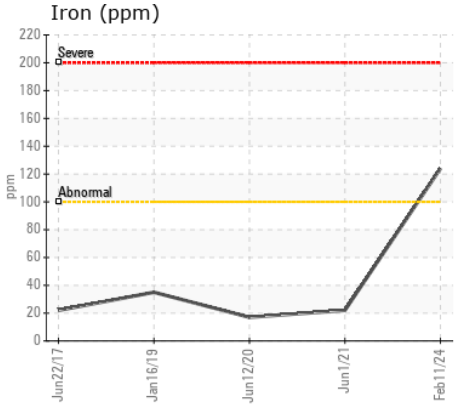
Viscosity @ 100°C



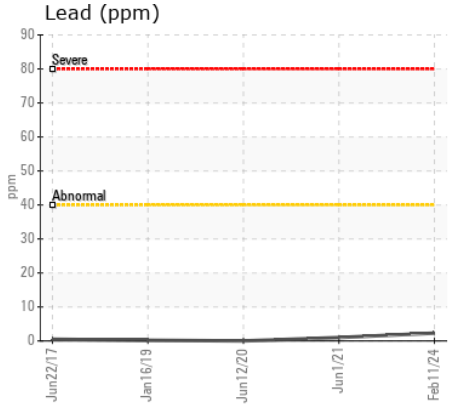
Aluminum (ppm)



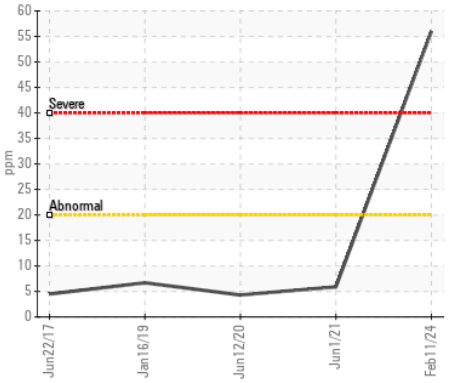
Iron (ppm)



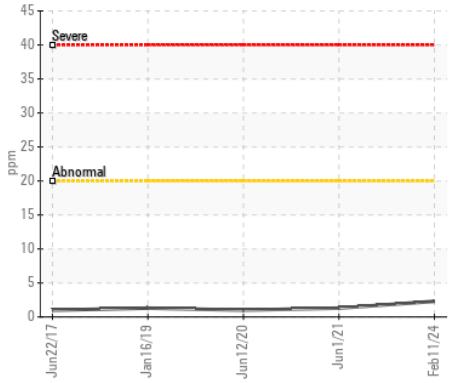
Lead (ppm)



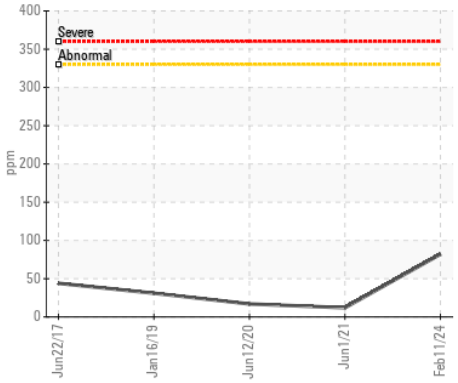
Aluminum (ppm)



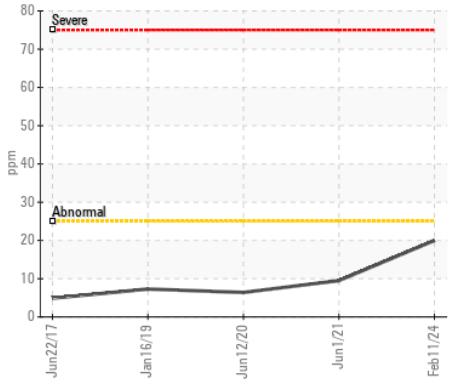
Chromium (ppm)



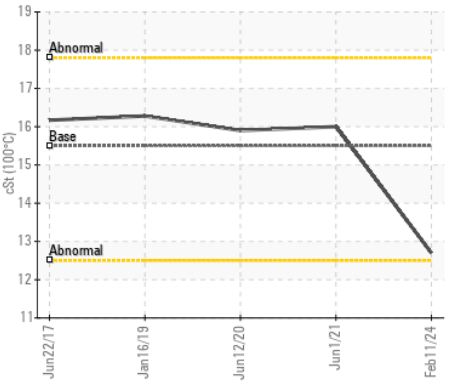
Copper (ppm)



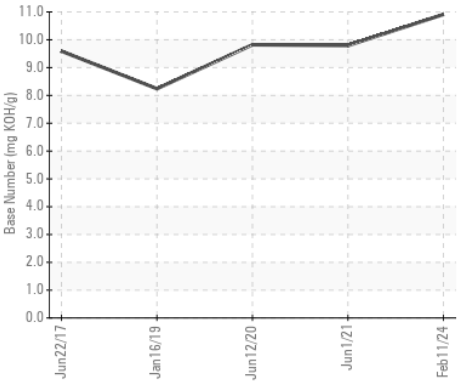
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: TR06104522	**Received**	: 29 Feb 2024
Lab Number	: 06104522	**Tested**	: 01 Mar 2024
Unique Number	: 10902752	**Diagnosed**	: 01 Mar 2024 - Wes Davis
Test Package	: MOB 2		

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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