



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
GMC SIERRA 3500 3353
 Component
Diesel Engine
 Fluid
TRC MOLY XL PRO-SPEC IV 15W40 (10 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06212599	TR06146773	TR06095127
Sample Date		Client Info		10 Jun 2024	03 Apr 2024	05 Feb 2024
Machine Age	mls	Client Info		138519	131293	128184
Oil Age	mls	Client Info		5000	5000	5000
Filter Age	mls	Client Info		5000	5000	5000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	20	15	19
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	5	3	4
Lead	ppm	ASTM D5185m	>40	<1	2	6
Copper	ppm	ASTM D5185m	>330	163	189	244
Tin	ppm	ASTM D5185m	>15	1	0	1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

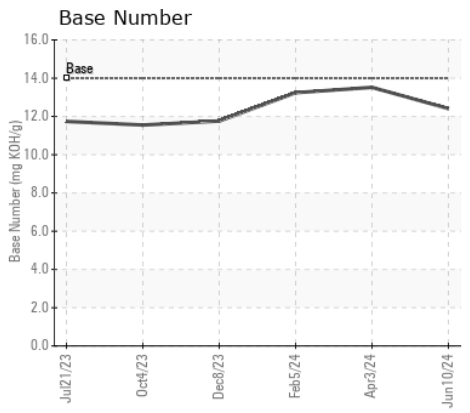
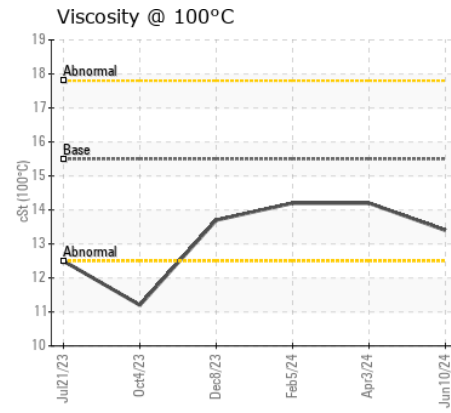
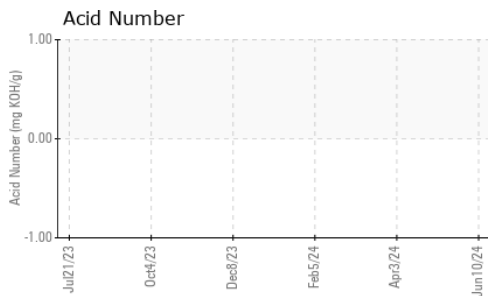
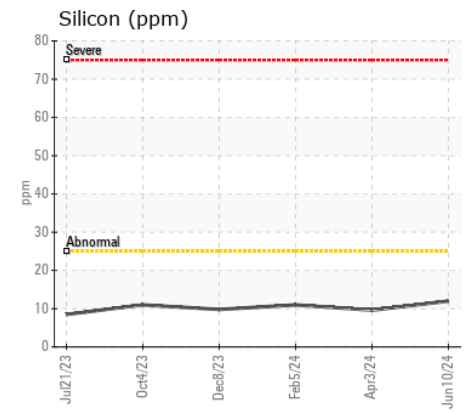
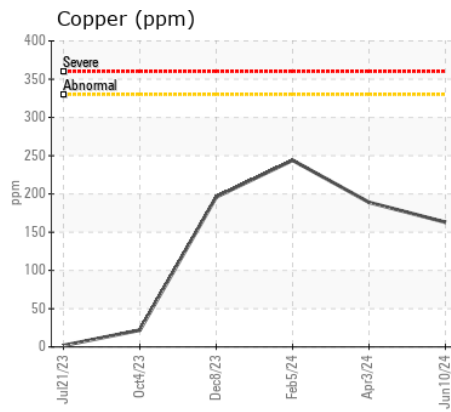
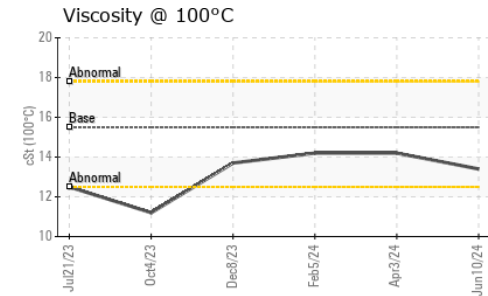
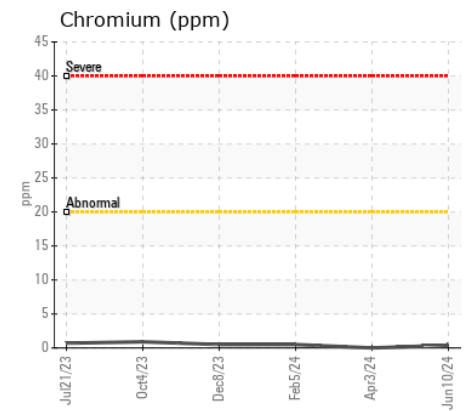
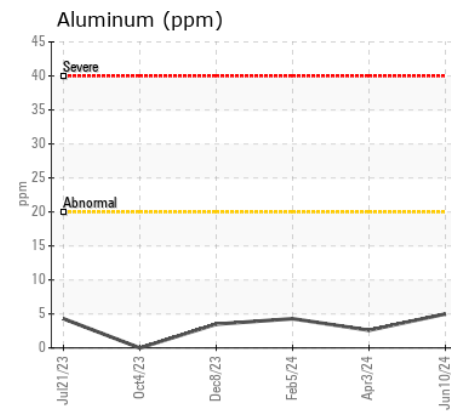
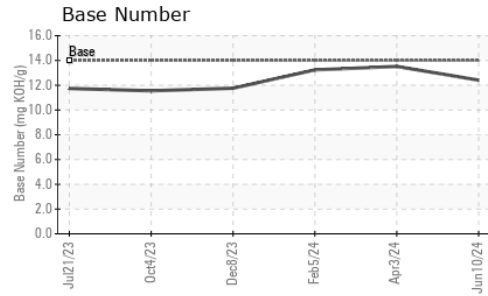
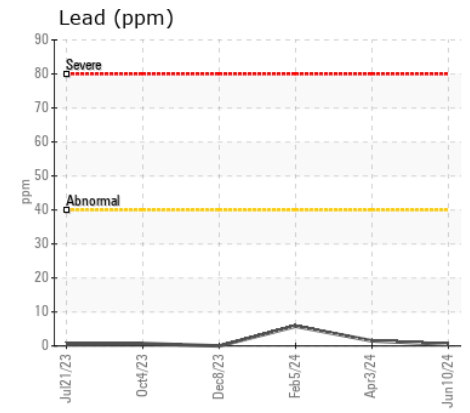
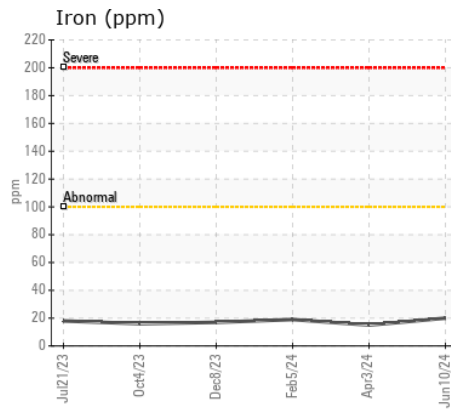
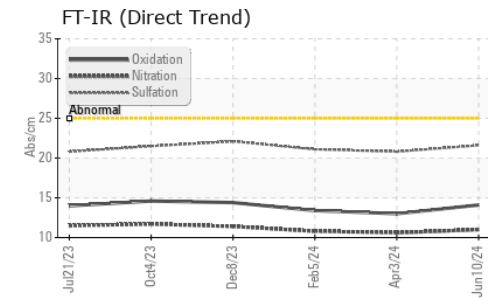
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	12	10	11
Potassium	ppm	ASTM D5185m	>20	5	2	1
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	0.8	0.8
Nitration	Abs/cm	*ASTM D7624	>20	11.0	10.6	10.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	20.8	21.1
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		4	2	1
Boron	ppm	ASTM D5185m		4	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		112	129	132
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m		20	20	21
Calcium	ppm	ASTM D5185m	1300	4047	4674	4167
Phosphorus	ppm	ASTM D5185m		899	999	897
Zinc	ppm	ASTM D5185m	1300	1006	1176	1084
Sulfur	ppm	ASTM D5185m		4485	5426	4154
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.1	13.0	13.4
Base Number (BN)	mg KOH/g	ASTM D2896	14	12.41	13.52	13.24
Visc @ 100°C	cSt	ASTM D445	15.5	13.4	14.2	14.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06212599 **Received** : 17 Jun 2024
Lab Number : 06212599 **Tested** : 19 Jun 2024
Unique Number : 11085463 **Diagnosed** : 19 Jun 2024 - Angela Borella
Test Package : MOB 2 (Additional Tests: TAN Man)

MITCHELL EXCAVATING - BODI MITCHELL
 200 SOUTH 1455 WEST
 LINDON, UT
 US 84042
 Contact: JOHN AAGARD

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: