



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**2002 INTERNATIONAL BUS 36 E**  
 Component  
**Rear Diesel Engine**  
 Fluid  
**TRC MOLY XL PRO-SPEC SYN BLEND 15W40 (30 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06100297	TR05413740	TR05216491
Sample Date		Client Info		04 Dec 2023	04 Nov 2021	03 Feb 2021
Machine Age	mls	Client Info		168459	156617	151886
Oil Age	mls	Client Info		6204	27536	22805
Filter Age	mls	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				NORMAL	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	102	50	104
Chromium	ppm	ASTM D5185m	>15	1	<1	2
Nickel	ppm	ASTM D5185m	>4	1	<1	2
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>15	5	4	7
Lead	ppm	ASTM D5185m	>70	6	<1	3
Copper	ppm	ASTM D5185m	>175	7	3	9
Tin	ppm	ASTM D5185m	>5	3	<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

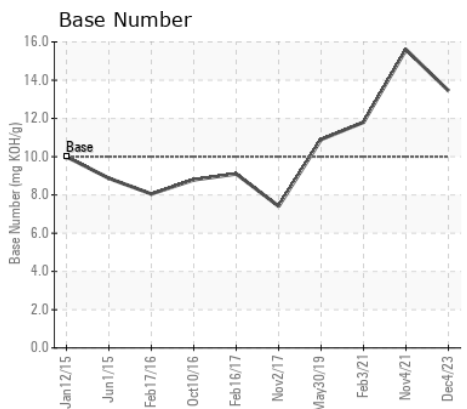
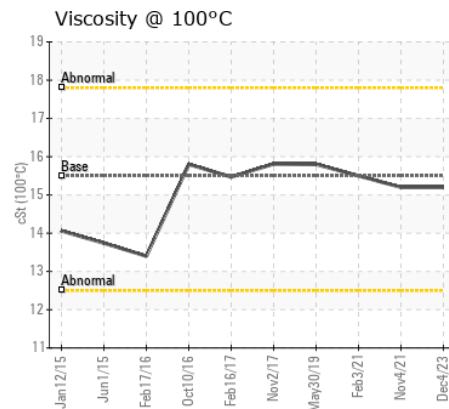
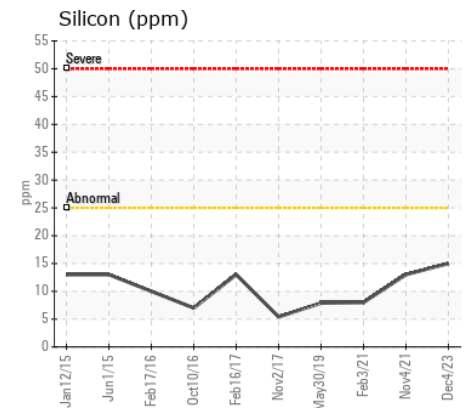
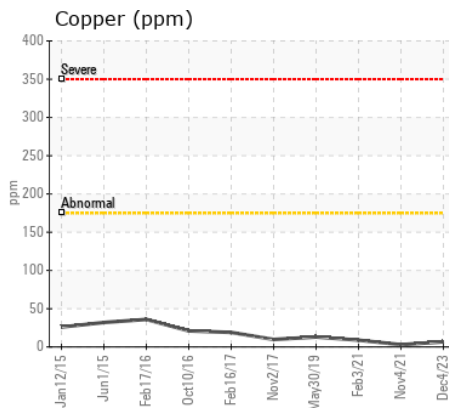
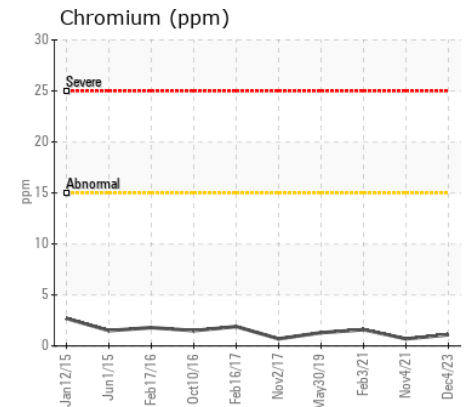
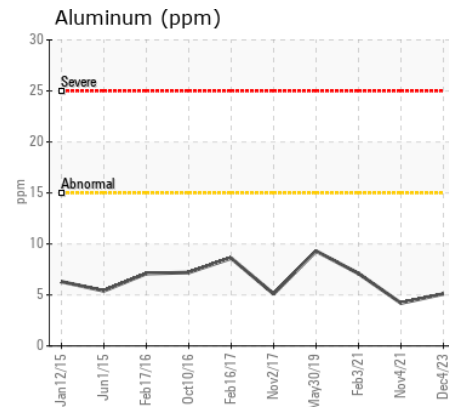
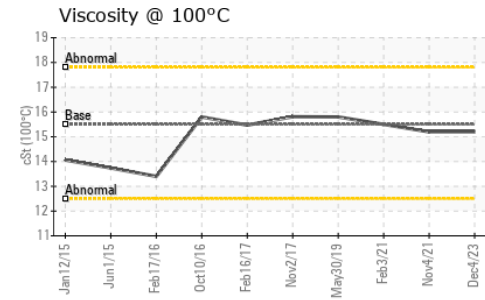
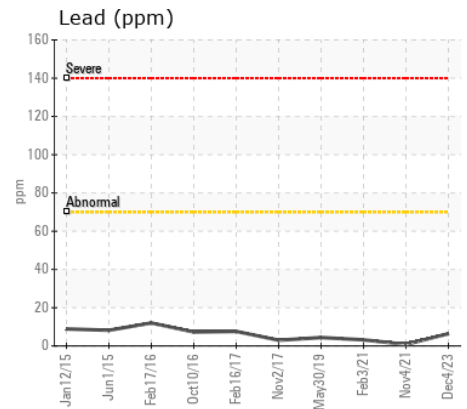
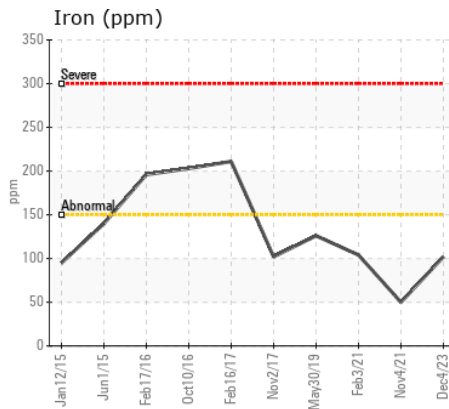
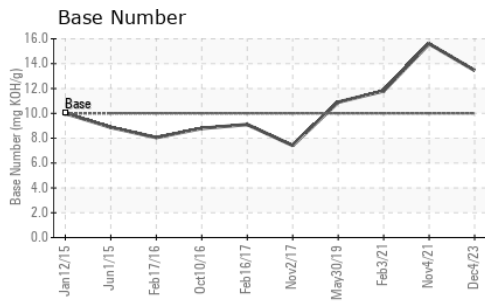
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	15	13	8
Potassium	ppm	ASTM D5185m	>20	4	2	0
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.7	1.4	2.1
Nitration	Abs/cm	*ASTM D7624	>20	9.4	9.4	12.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.8	20.3	25.1
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	3	13
Boron	ppm	ASTM D5185m		5	0	2
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		120	140	154
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		21	35	329
Calcium	ppm	ASTM D5185m	2300	4193	4583	3687
Phosphorus	ppm	ASTM D5185m		855	925	910
Zinc	ppm	ASTM D5185m	1200	1056	1032	1068
Sulfur	ppm	ASTM D5185m		4059	3513	3130
Oxidation	Abs/.1mm	*ASTM D7414	>25	10.5	10.1	14.4
Base Number (BN)	mg KOH/g	ASTM D2896	10	13.45	15.6	11.8
Visc @ 100°C	cSt	ASTM D445	15.5	15.2	15.2	15.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR06100297  
**Lab Number** : 06100297  
**Unique Number** : 10898527  
**Test Package** : MOB 2

**Received** : 26 Feb 2024  
**Tested** : 27 Feb 2024  
**Diagnosed** : 27 Feb 2024 - Wes Davis

**COLORADO RIVER UNION HS**  
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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)