



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
2008 IHC BCSD 17E
 Component
Front 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		TR06100303	TR06029639	TR05765286
Sample Date		Client Info		13 Feb 2024	13 Sep 2023	10 Nov 2022
Machine Age	mls	Client Info		166191	161030	151645
Oil Age	mls	Client Info		10783	5622	17999
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	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	61	43	126
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	<1	0	0
Aluminum	ppm	ASTM D5185m	>15	9	9	17
Lead	ppm	ASTM D5185m	>70	4	4	8
Copper	ppm	ASTM D5185m	>175	9	7	10
Tin	ppm	ASTM D5185m	>5	1	<1	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

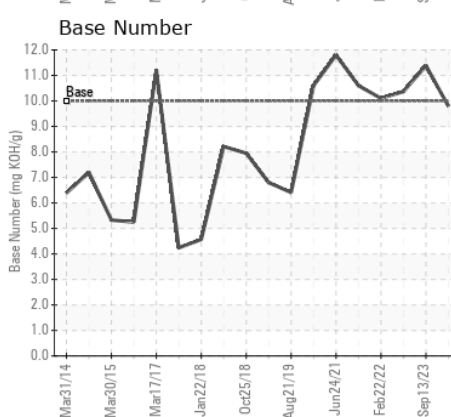
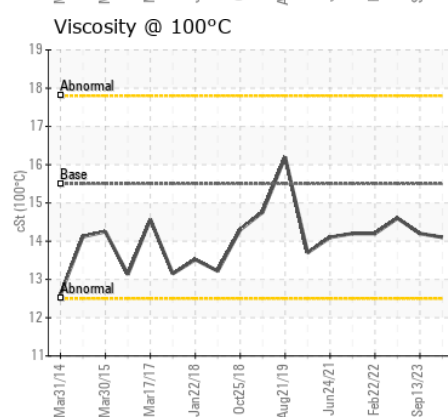
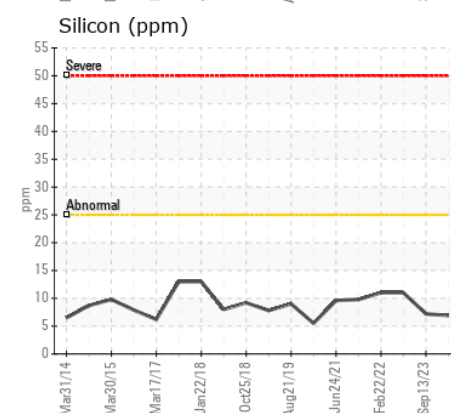
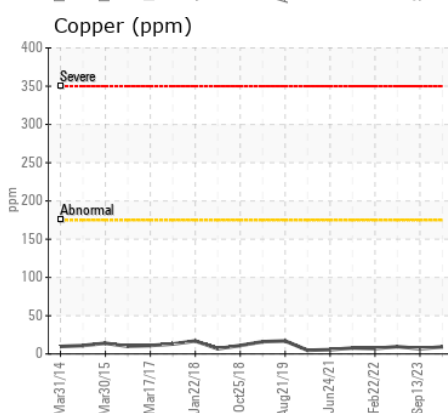
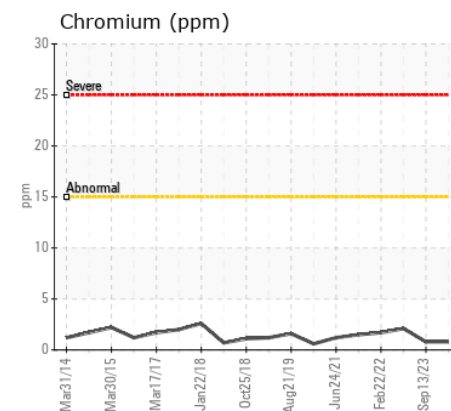
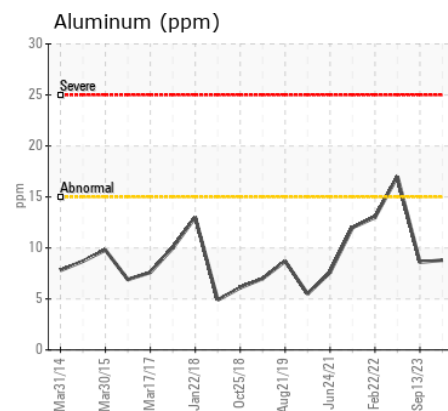
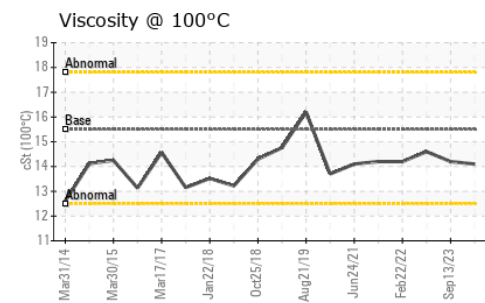
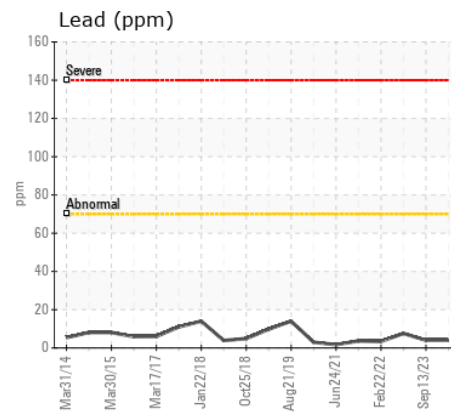
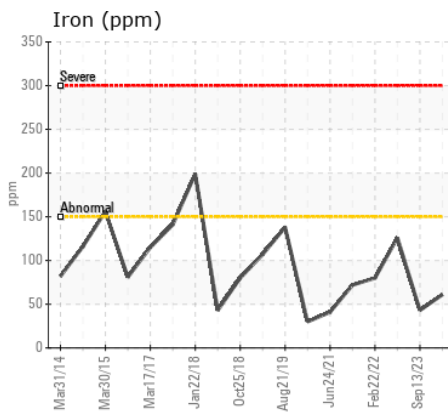
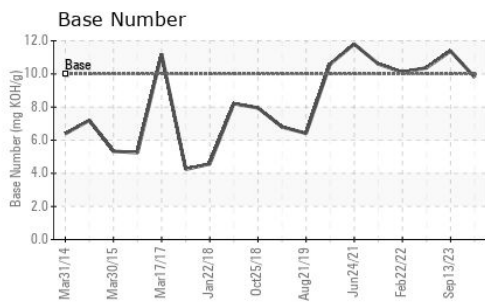
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	7	11
Potassium	ppm	ASTM D5185m	>20	6	4	20
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	1.1	2.1
Nitration	Abs/cm	*ASTM D7624	>20	13.6	11.2	16.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.7	23.2	31.7
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		72	63	▲ 306
Boron	ppm	ASTM D5185m		6	<1	3
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		121	123	135
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m		19	0	24
Calcium	ppm	ASTM D5185m	2300	4329	4185	4364
Phosphorus	ppm	ASTM D5185m		889	1011	830
Zinc	ppm	ASTM D5185m	1200	1061	1103	1010
Sulfur	ppm	ASTM D5185m		4140	4382	4635
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.6	13.8	20.7
Base Number (BN)	mg KOH/g	ASTM D2896	10	9.80	11.38	10.37
Visc @ 100°C	cSt	ASTM D445	15.5	14.1	14.2	14.6



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06100303
Lab Number : 06100303
Unique Number : 10898533
Test Package : MOB 2
Received : 26 Feb 2024
Tested : 27 Feb 2024
Diagnosed : 27 Feb 2024 - Wes Davis

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Certificate L2367
 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)