



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
BLUE BIRD 37E
 Component
Diesel Engine
 Fluid
TRC PRO-SPEC III SAE 10W30 (17 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06074150	TR05690952	TR05555080
Sample Date		Client Info		21 Dec 2023	24 Oct 2022	03 May 2022
Machine Age	mls	Client Info		113402	96973	91822
Oil Age	mls	Client Info		0	0	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>130	44	▲ 167	99
Chromium	ppm	ASTM D5185m	>10	<1	2	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	7	15	12
Lead	ppm	ASTM D5185m	>20	<1	<1	0
Copper	ppm	ASTM D5185m	>125	2	4	2
Tin	ppm	ASTM D5185m	>4	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

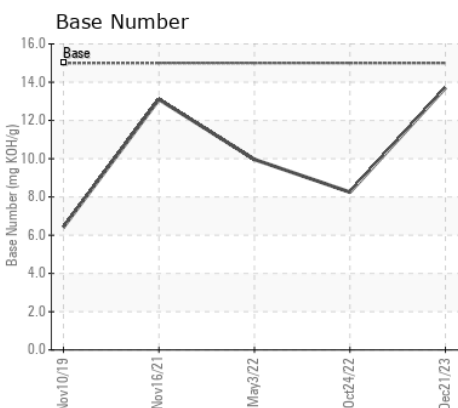
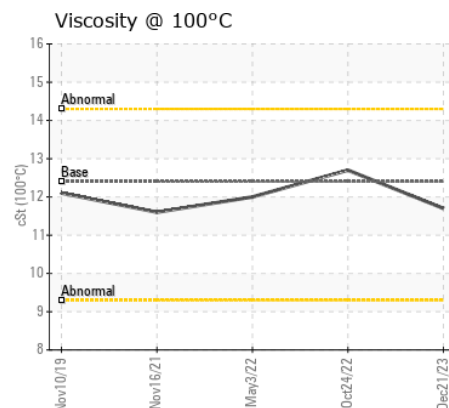
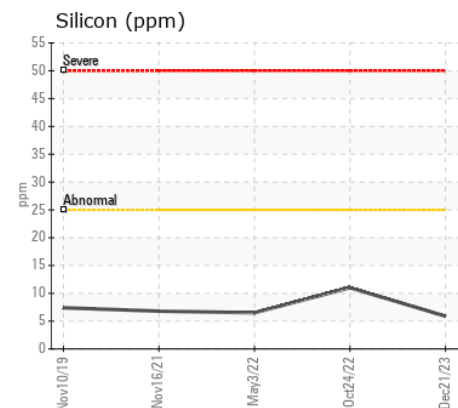
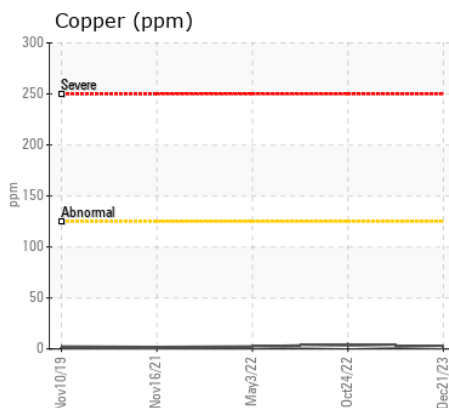
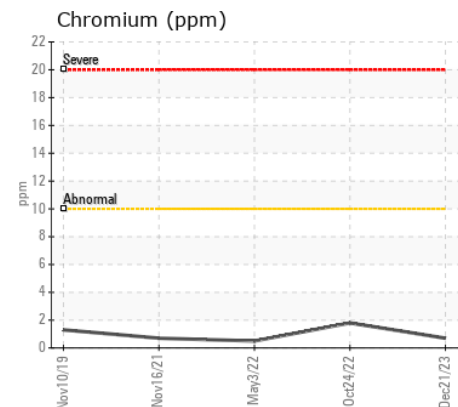
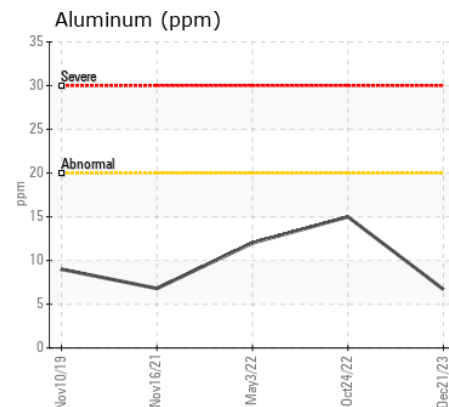
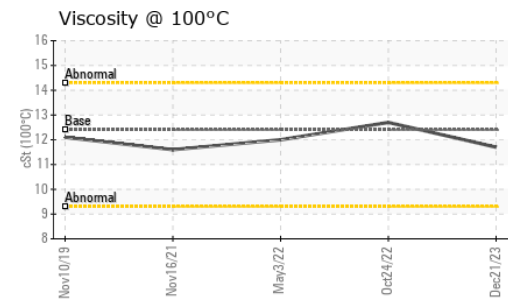
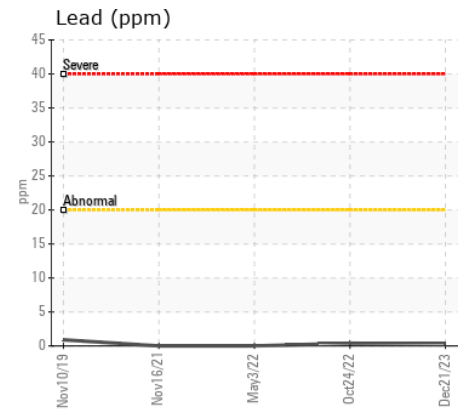
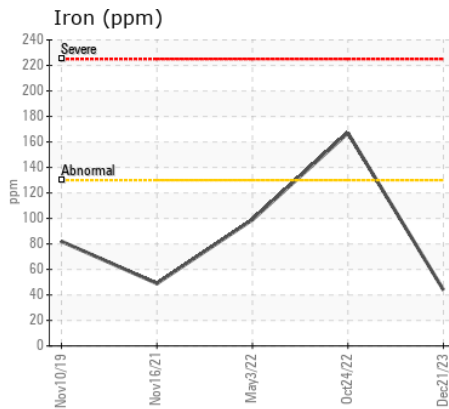
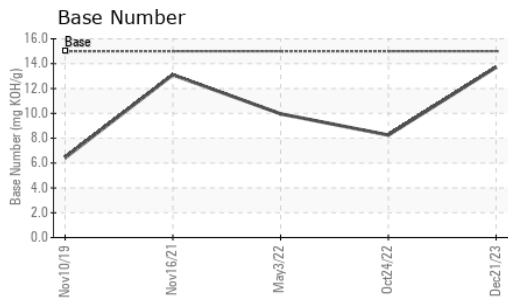
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	11	6
Potassium	ppm	ASTM D5185m	>20	8	12	7
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	>6	1.1	4	1.7
Nitration	Abs/cm	*ASTM D7624	>20	9.4	17	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.5	34.5	23.7
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		0	6	5
Boron	ppm	ASTM D5185m		0	0	11
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		2	11	9
Manganese	ppm	ASTM D5185m		<1	2	<1
Magnesium	ppm	ASTM D5185m		27	72	68
Calcium	ppm	ASTM D5185m	4500	4032	3946	3720
Phosphorus	ppm	ASTM D5185m		801	824	796
Zinc	ppm	ASTM D5185m	1400	1027	991	1015
Sulfur	ppm	ASTM D5185m		3937	4095	3402
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.6	21.3	15.8
Base Number (BN)	mg KOH/g	ASTM D2896	15	13.71	8.25	9.96
Visc @ 100°C	cSt	ASTM D445	12.4	11.7	12.7	12.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06074150 **Received** : 30 Jan 2024
Lab Number : 06074150 **Diagnosed** : 31 Jan 2024
Unique Number : 10856241 **Diagnostician** : Wes Davis
Test Package : MOB 2

WELD COUNTY SCHOOL DISTRICT
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 WINDSOR, CO
 US 80550
 Contact: JAMES WEST
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 T: (720)425-9923
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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)