



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**BLUE BIRD 50E**  
 Component  
**Diesel Engine**  
 Fluid  
**TRC PRO-SPEC IV XP SYN BLEND SAE 10W30 (--- QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR06191246	TR06065852	TR05772211
Sample Date		Client Info		13 May 2024	15 Dec 2023	08 Feb 2023
Machine Age	mls	Client Info		76381	65984	47739
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	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>130	41	312	154
Chromium	ppm	ASTM D5185m	>10	<1	3	2
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	10	4
Lead	ppm	ASTM D5185m	>20	<1	0	<1
Copper	ppm	ASTM D5185m	>125	1	5	3
Tin	ppm	ASTM D5185m	>4	<1	1	1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

**CONTAMINATION**

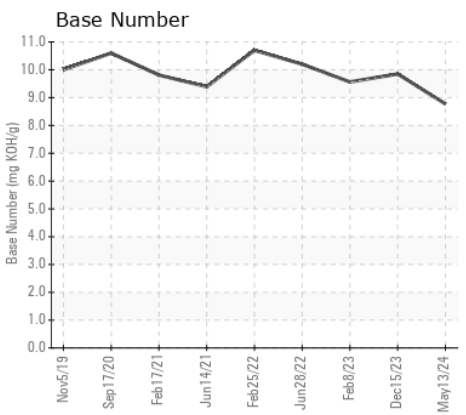
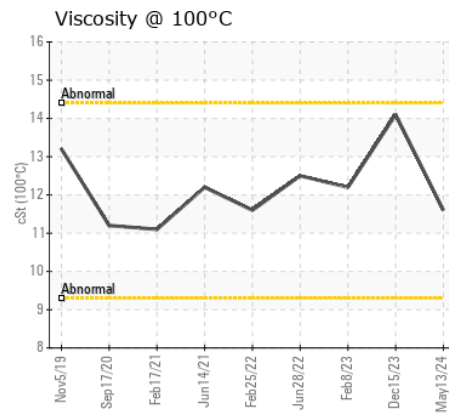
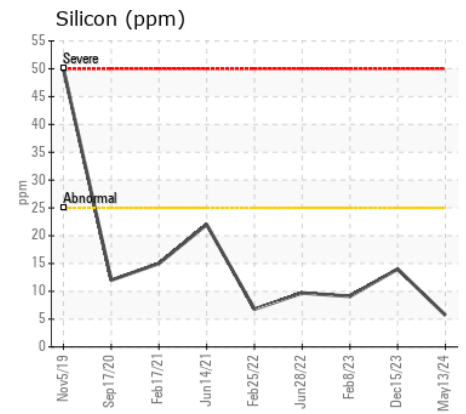
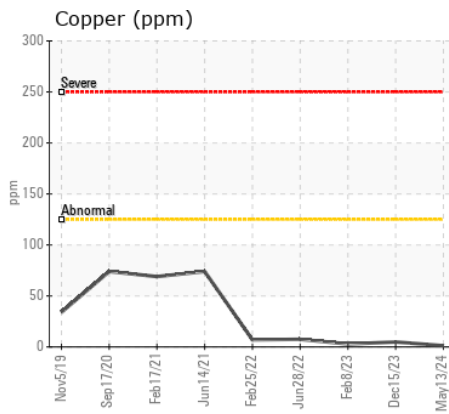
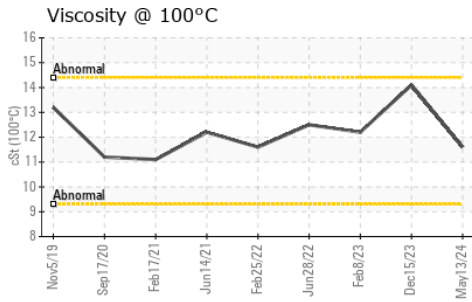
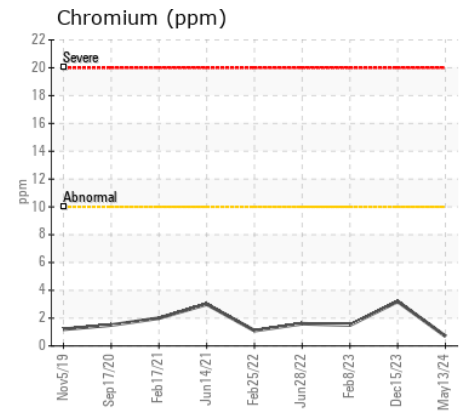
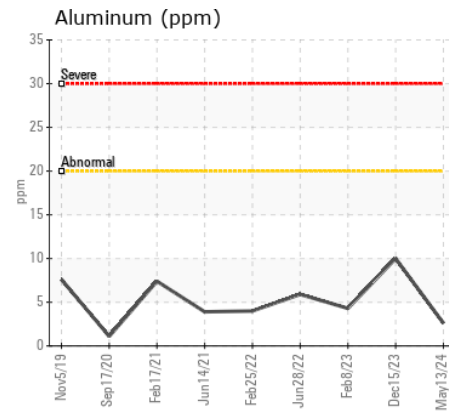
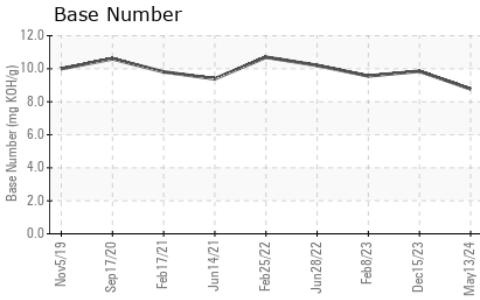
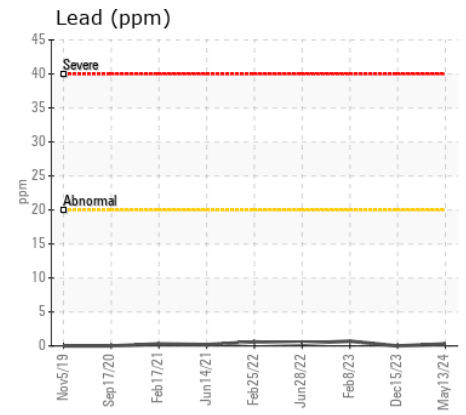
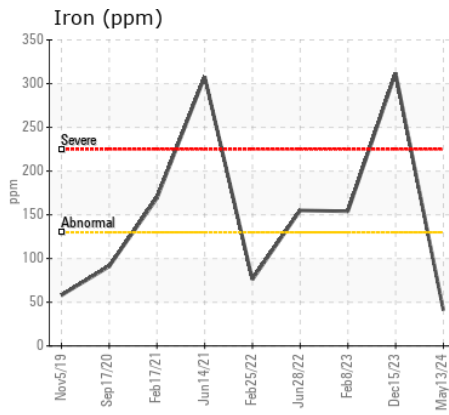
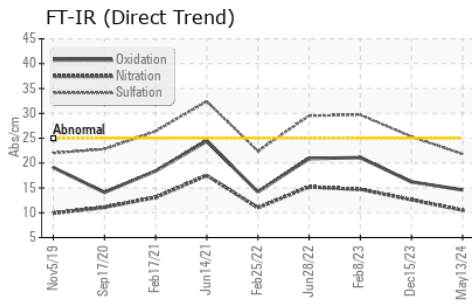
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	14	9
Potassium	ppm	ASTM D5185m	>20	4	11	<1
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	0.7	0.7	1.9
Nitration	Abs/cm	*ASTM D7624	>20	10.5	12.6	14.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.8	25.3	29.7
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		<1	4	4
Boron	ppm	ASTM D5185m		4	2	0
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		6	2	1
Manganese	ppm	ASTM D5185m		<1	3	1
Magnesium	ppm	ASTM D5185m		26	49	21
Calcium	ppm	ASTM D5185m		4046	4712	4390
Phosphorus	ppm	ASTM D5185m		1045	1025	887
Zinc	ppm	ASTM D5185m		1141	1213	1092
Sulfur	ppm	ASTM D5185m		4741	4066	4188
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.6	16.2	21.1
Base Number (BN)	mg KOH/g	ASTM D2896		8.77	9.85	9.56
Visc @ 100°C	cSt	ASTM D445		11.6	14.1	12.2



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR06191246  
**Lab Number** : 06191246  
**Unique Number** : 11047998  
**Test Package** : MOB 2  
**Received** : 24 May 2024  
**Tested** : 31 May 2024  
**Diagnosed** : 31 May 2024 - Wes Davis

**WELD COUNTY SCHOOL DISTRICT**  
 110 N 8TH ST  
 WINDSOR, CO  
 US 80550  
 Contact: JAMES WEST  
 james@sellsoil.com  
 T: (720)425-9923  
 F: x:

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)