



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
BLUE BIRD 52E
 Component
Gasoline 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		TR06176283	TR05273771	TR05147998
Sample Date		Client Info		29 Apr 2024	27 May 2021	30 Dec 2020
Machine Age	mls	Client Info		48710	15805	10155
Oil Age	mls	Client Info		0	10000	5000
Filter Age	mls	Client Info		0	5000	5000
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	37	46	36
Chromium	ppm	ASTM D5185m	>20	2	2	1
Nickel	ppm	ASTM D5185m	>5	1	2	2
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>40	6	4	6
Lead	ppm	ASTM D5185m	>50	1	<1	2
Copper	ppm	ASTM D5185m	>155	1	6	6
Tin	ppm	ASTM D5185m	>10	0	<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

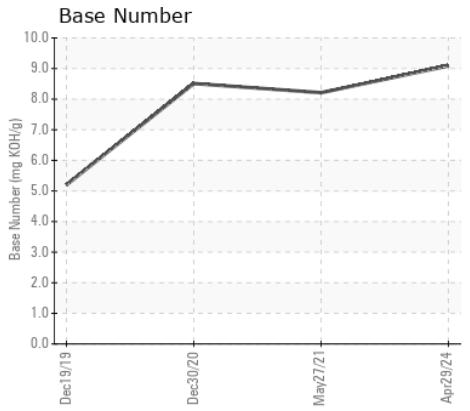
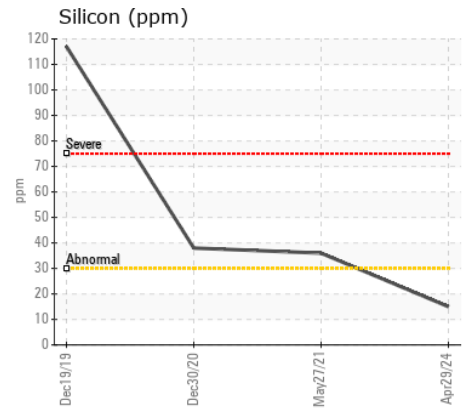
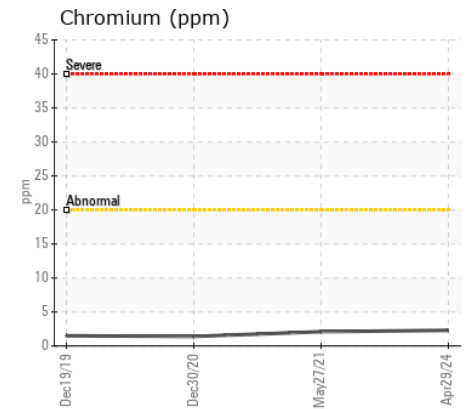
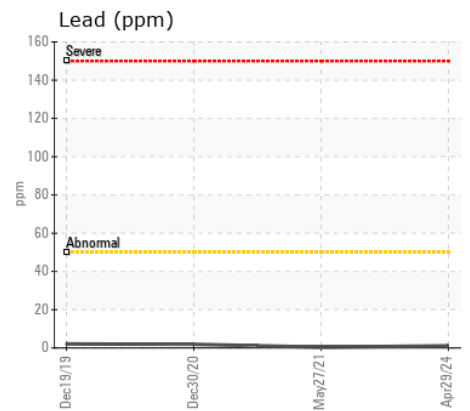
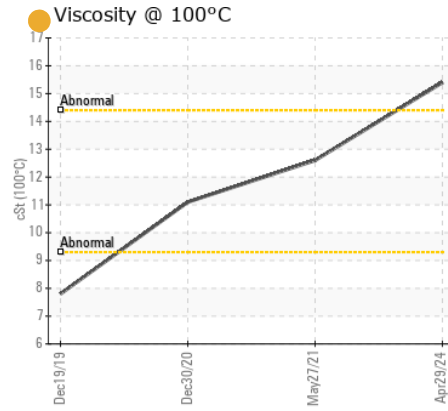
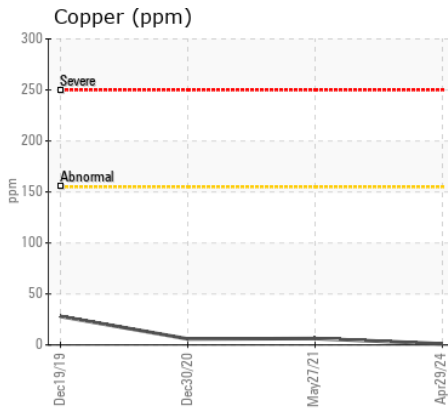
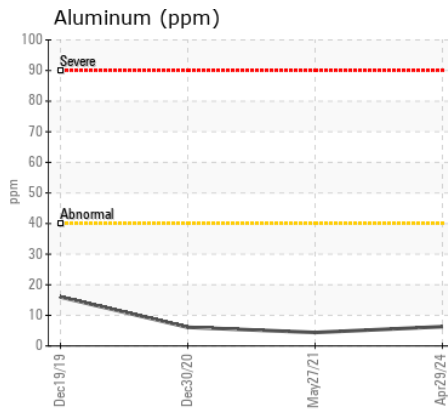
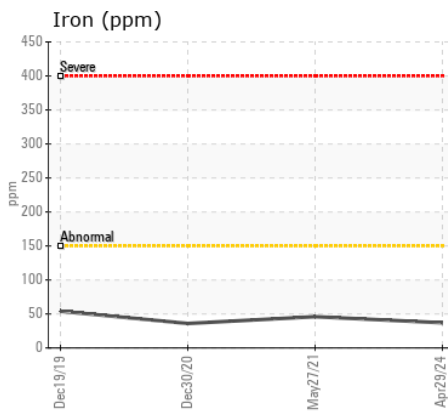
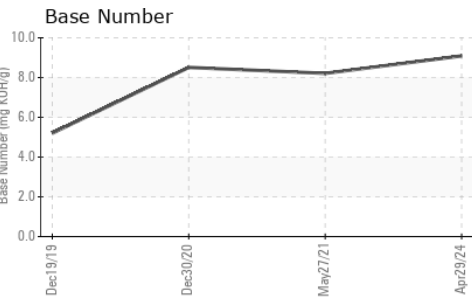
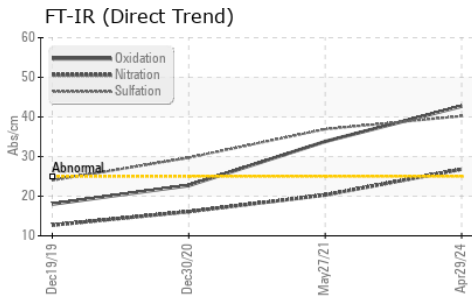
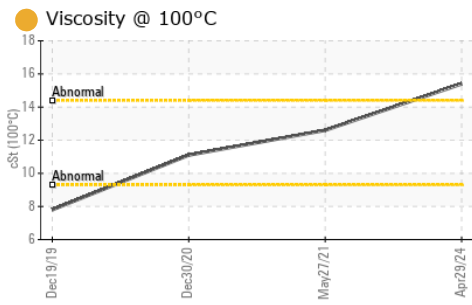
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	15	36	38
Potassium	ppm	ASTM D5185m	>20	5	7	14
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	26.8	20.3	16.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	40.2	36.9	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 oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>400	38	19	14
Boron	ppm	ASTM D5185m		6	8	6
Barium	ppm	ASTM D5185m		<1	<1	0
Molybdenum	ppm	ASTM D5185m		9	5	3
Manganese	ppm	ASTM D5185m		2	2	2
Magnesium	ppm	ASTM D5185m		46	76	95
Calcium	ppm	ASTM D5185m		4310	3779	3915
Phosphorus	ppm	ASTM D5185m		929	822	809
Zinc	ppm	ASTM D5185m		1107	1006	942
Sulfur	ppm	ASTM D5185m		4728	3174	3119
Oxidation	Abs/.1mm	*ASTM D7414	>25	42.7	33.8	22.7
Base Number (BN)	mg KOH/g	ASTM D2896		9.09	8.21	8.51
Visc @ 100°C	cSt	ASTM D445		15.4	12.6	11.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR06176283
Lab Number : 06176283
Unique Number : 11022336
Test Package : MOB 2

Received : 10 May 2024
Tested : 16 May 2024
Diagnosed : 16 May 2024 - Sean Felton

WELD COUNTY SCHOOL DISTRICT
 110 N 8TH ST
 WINDSOR, CO
 US 80550

Contact: JAMES WEST
 james@sellsoil.com
 T: (720)425-9923

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)

F: x: