



OIL ANALYSIS REPORT

WEAR  
CONTAMINATION  
FLUID CONDITION

ATTENTION  
NORMAL  
NORMAL

Area

[22231164]

Machine Id

129-162B Plug Screw Bearing Unit

Component

Bearing

Fluid

ESSO SPARTAN EP 220 (4 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0930292	WC0900435	WC0870415
Sample Date		Client Info		29 May 2024	26 Mar 2024	24 Oct 2023
Machine Age	days	Client Info		0	0	0
Oil Age	days	Client Info		0	0	0
Filter Age	days	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				ATTENTION	NORMAL	ATTENTION

WEAR

Iron ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. All other component wear rates are normal.

PQ		ASTM D8184*		19	7	45
Iron	ppm	ASTM D5185(m)	>20	47	31	111
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	2
Nickel	ppm	ASTM D5185(m)	>20	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	0	0	0
Lead	ppm	ASTM D5185(m)	>20	0	0	<1
Copper	ppm	ASTM D5185(m)	>20	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>20	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

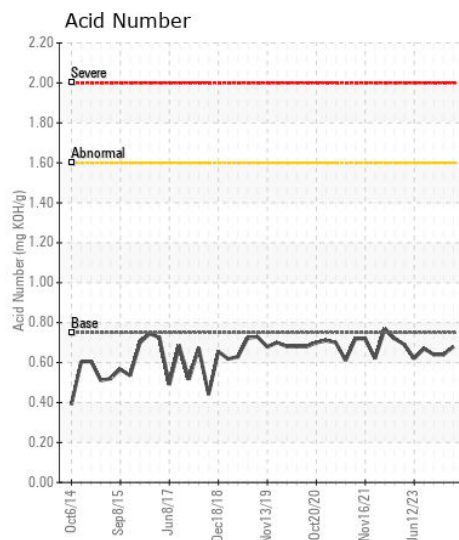
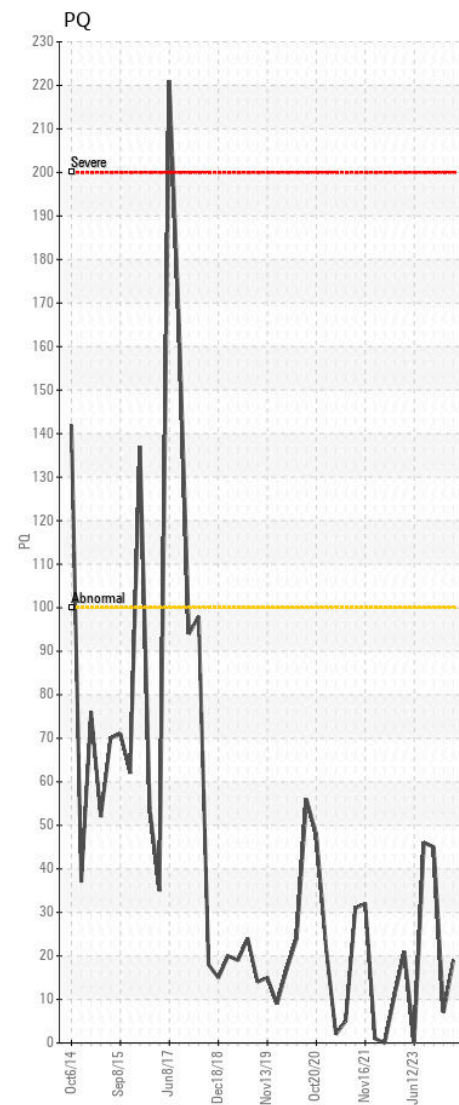
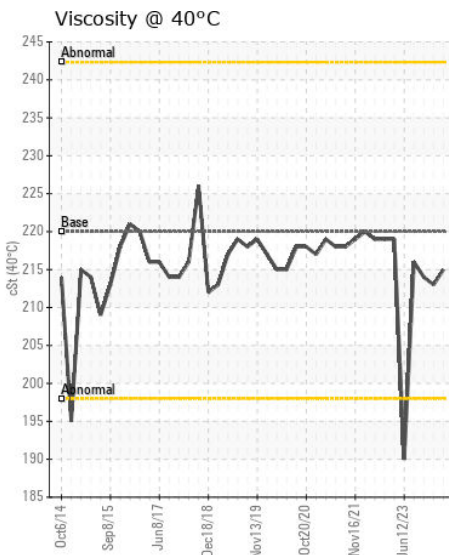
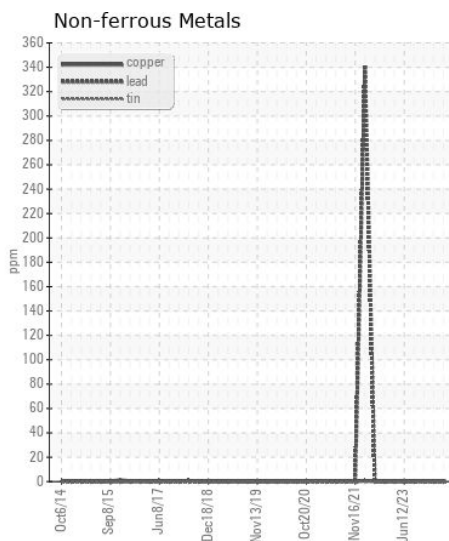
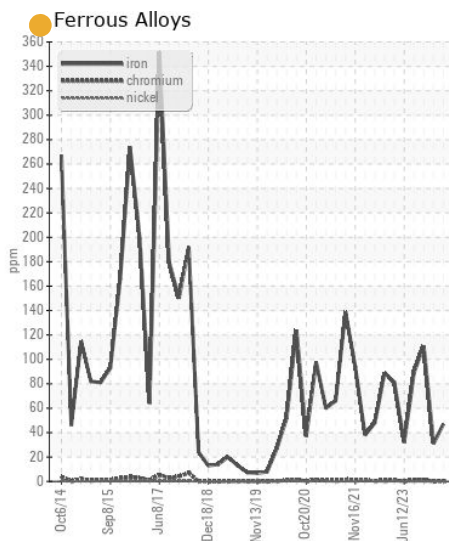
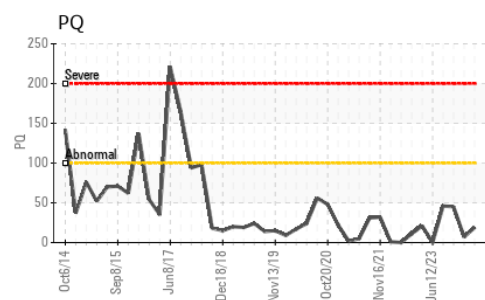
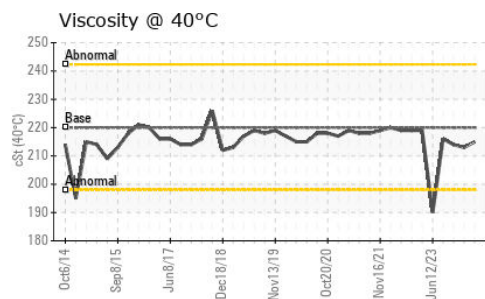
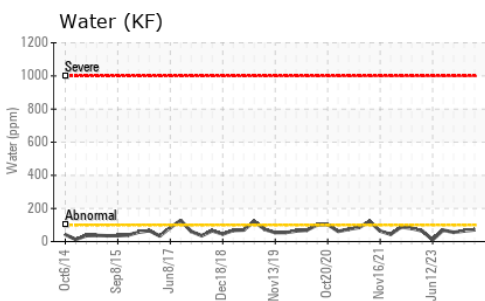
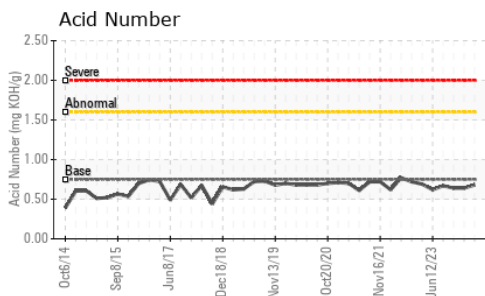
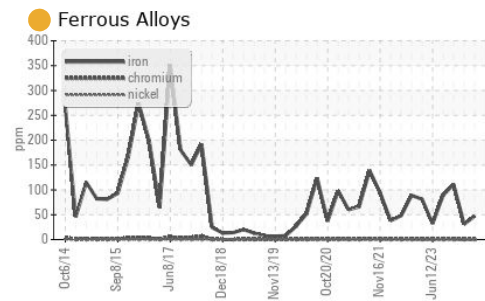
The water content is negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>15	0	0	1
Potassium	ppm	ASTM D5185(m)	>20	0	<1	0
Water	%	ASTM D6304*	>2	0.007	0.006	0.005
ppm Water	ppm	ASTM D6304*		71	64	55.9
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*	>2	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		0	0	<1
Boron	ppm	ASTM D5185(m)	.5	24	26	23
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)		<1	0	<1
Magnesium	ppm	ASTM D5185(m)	0	<1	1	0
Calcium	ppm	ASTM D5185(m)	1.7	<1	5	1
Phosphorus	ppm	ASTM D5185(m)	250	327	323	351
Zinc	ppm	ASTM D5185(m)	.3	1	3	4
Sulfur	ppm	ASTM D5185(m)		15070	15254	16554
Acid Number (AN)	mg KOH/g	ASTM D974*	0.75	0.68	0.64	0.64
Visc @ 40°C	cSt	ASTM D7279(m)	220	215	213	214



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0930292 **Received** : 06 Jun 2024  
**Lab Number** : 02640338 **Tested** : 10 Jun 2024  
**Unique Number** : 5789500 **Diagnosed** : 10 Jun 2024 - Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: KF, TAN Man )

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

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