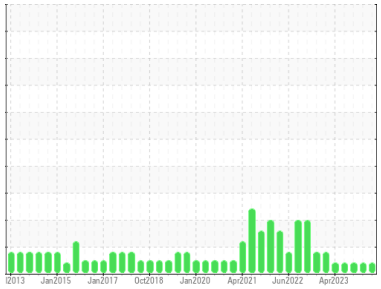
OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Area
(ZONE3) BRUCE A/2/33120
Machine Id
2-33120-P3-PM Lower Brg
Component
Lower Bearing
Fluid
MOBIL DTE 746 (21 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

The Direct-Reading Ferrographic data (DL, DS, %large) is normal. All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

Fluid Condition

Viscosity of sample indicates oil is within ISO 32 range, advise investigate. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0871695**	WC	WC0801549
Sample Date		Client Info		**04 Jan 2024**	02 Oct 2023	10 Jul 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>1	**0**	0	0
Chromium	ppm	ASTM D5185(m)	>1	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>1	**0**	<1	<1
Titanium	ppm	ASTM D5185(m)	>5	**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	<1	0
Aluminum	ppm	ASTM D5185(m)	>1	**<1**	0	0
Lead	ppm	ASTM D5185(m)	>3	**0**	<1	0
Copper	ppm	ASTM D5185(m)	>1	**<1**	<1	<1
Tin	ppm	ASTM D5185(m)	>1	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

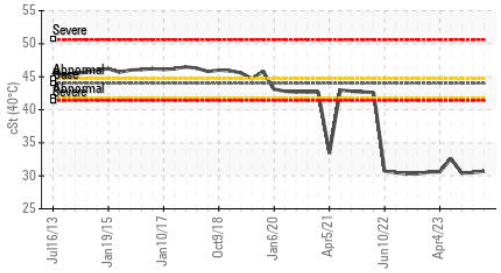
DR-FERROGRAPHY		method	limit/base	current	history1	history2
Large Particles		DR-Ferr*		**0.6**	1.1	0.9
Small Particles		DR-Ferr*		**0.5**	1.0	0.3
Total Particles		DR-Ferr*	>---	**1.1**	2.1	1.2
Large Particles Percentage	%	DR-Ferr*		**9.1**	4.8	50
Severity Index		DR-Ferr*		**0**	0	1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**0**	<1	0
Barium	ppm	ASTM D5185(m)		**0**	0	0
Molybdenum	ppm	ASTM D5185(m)		**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)		**0**	0	0
Calcium	ppm	ASTM D5185(m)		**<1**	<1	<1
Phosphorus	ppm	ASTM D5185(m)		**0**	0	0
Zinc	ppm	ASTM D5185(m)		**<1**	<1	1
Sulfur	ppm	ASTM D5185(m)		**51**	66	72
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

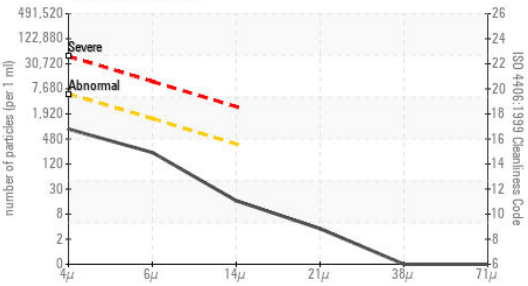
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>5	**0**	0	<1
Sodium	ppm	ASTM D5185(m)	>5	**0**	0	<1
Potassium	ppm	ASTM D5185(m)	>20	**4**	0	<1
Water	%	ASTM D6304*	>0.005	**0.002**	0.003	0.002
ppm Water	ppm	ASTM D6304*	>50	**20**	35.0	16.4

OIL ANALYSIS REPORT

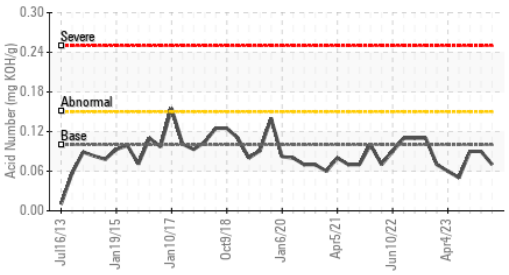
Viscosity @ 40°C



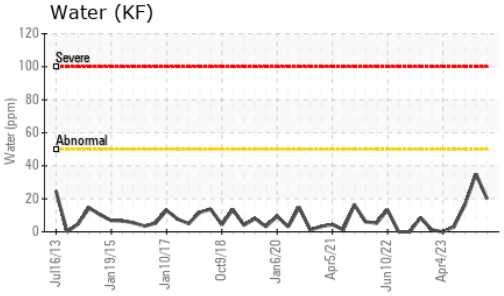
Particle Count



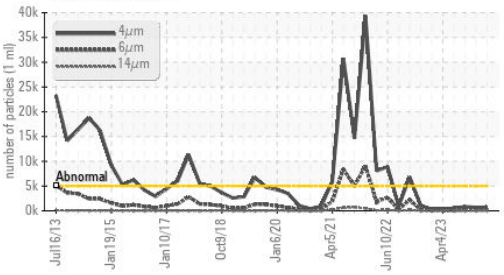
Acid Number



Water (KF)



Particle Trend

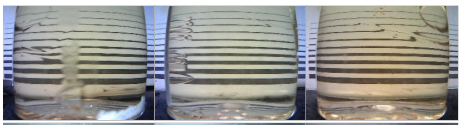


FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	**729**	693	839
Particles >6µm	ASTM D7647	>1300	**200**	206	222
Particles >14µm	ASTM D7647	>320	**14**	17	21
Particles >21µm	ASTM D7647	>80	**3**	5	4
Particles >38µm	ASTM D7647	>20	**0**	1	0
Particles >71µm	ASTM D7647	>4	**0**	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/15	**17/15/11**	17/15/11	17/15/12

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.10	**0.07**	0.09	0.09

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	VLITE
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*	>0.005	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	44.0	▲ **30.7**	▲ 30.5	▲ 30.4

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0871695 **Recieved** : 11 Jan 2024
Lab Number : 02608228 **Diagnosed** : 16 Jan 2024
Unique Number : 5709314 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: Bottom, DR-Ferr, 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.

Bruce Power - Bruce A PdM
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