

Area

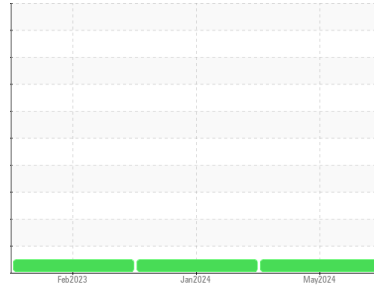
SMART OIL

Machine Id

VD020783 - BIG STONE PLANT

Component

Compressor



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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		UHK0001450	UHK06054986	UHK05777566
Sample Date	Client Info		23 May 2024	04 Jan 2024	21 Feb 2023
Machine Age	hrs	Client Info	6625	4612	2110
Oil Age	hrs	Client Info	6625	4612	2110
Oil Changed		Client Info	N/A	Changed	Not Chngd
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION method limit/base current history1 history2

Water	WC Method	>0.1	NEG	NEG	NEG
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WEAR METALS method limit/base current history1 history2

Iron	ppm	ASTM D5185m	>50	3	1	0
Chromium	ppm	ASTM D5185m	>10	<1	<1	0
Nickel	ppm	ASTM D5185m		9	11	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	2	<1
Lead	ppm	ASTM D5185m	>25	<1	<1	0
Copper	ppm	ASTM D5185m	>50	3	1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		<1	<1	0

ADDITIVES method limit/base current history1 history2

Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		1	0	0
Molybdenum	ppm	ASTM D5185m		<1	<1	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		4	4	15
Calcium	ppm	ASTM D5185m	20	23	2	9
Phosphorus	ppm	ASTM D5185m		37	48	45
Zinc	ppm	ASTM D5185m		18	0	19
Sulfur	ppm	ASTM D5185m		145	53	22

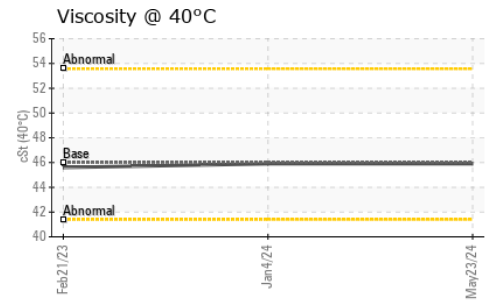
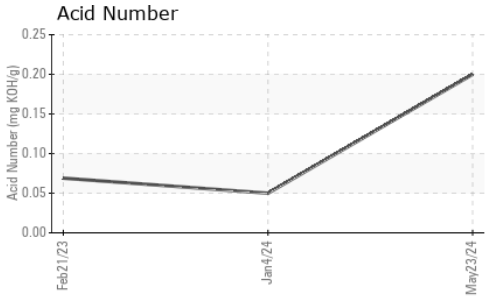
CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185m	>25	9	8	6
Sodium	ppm	ASTM D5185m		5	0	7
Potassium	ppm	ASTM D5185m	>20	1	<1	0

FLUID DEGRADATION method limit/base current history1 history2

Acid Number (AN)	mg KOH/g	ASTM D8045		0.20	0.05	0.069
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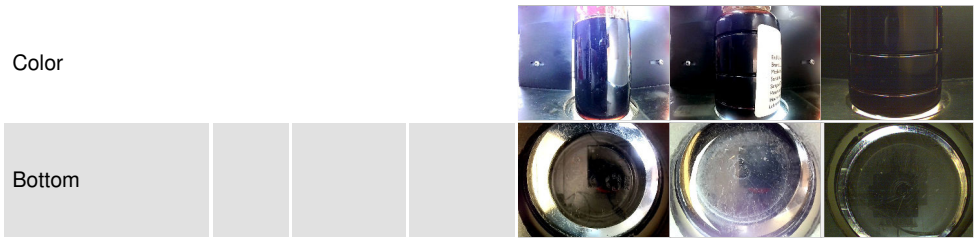
OIL ANALYSIS REPORT



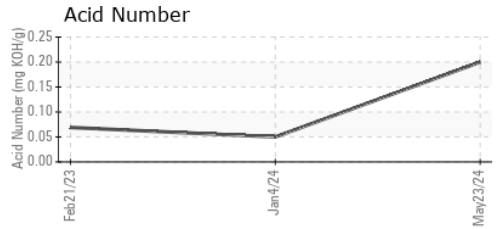
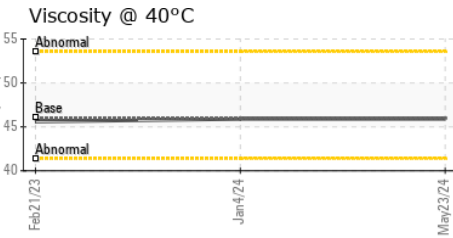
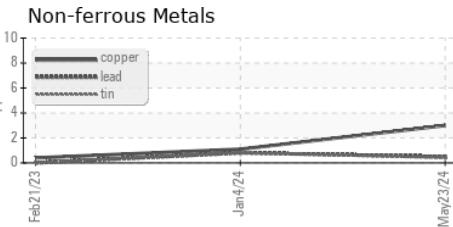
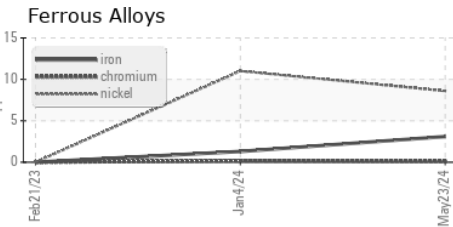
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	45.9	45.9	45.6

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : UHK0001450 **Received** : 31 May 2024
Lab Number : **06196799** **Tested** : 03 Jun 2024
Unique Number : 11058922 **Diagnosed** : 03 Jun 2024 - Sean Felton
Test Package : IND 2

OTTER TAIL POWER COMPANY
 BIG STONE CITY, SD
 US 57216
 Contact: BJ NELSON
 BJNELSON@OTPCO.COM

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - 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)