

Area

Turret [167845]

Machine Id

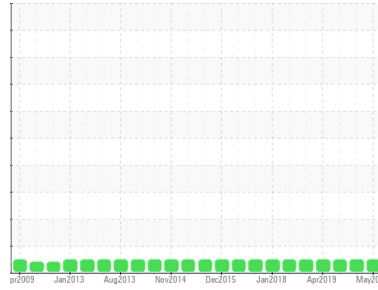
777-2 Primary System (WH-167845) (S/N Sample Tag: NC-29602 WH-167845)

Component

Heat Transfer Fluid

Fluid

SHELL THERMIA B (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. LUBE360 Oil Diagnostics recommends using HTTFL sample kits for heat transfer fluids. Please contact us at 1-800-268-2131 and provide a purchase order for \$245 + HST in order to conduct additional testing (boiling points @ 10%, 50%, and 90%, percent boiling < 335°C, and solids) to determine the suitability for continued use. Please contact your representative for information regarding the proper sampling kits for your service.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

The AN level is acceptable for this fluid.

SAMPLE INFORMATION method limit/base current history1 history2

Sample Number	Client Info	PC0080215	PC	PC
Sample Date	Client Info	27 May 2024	18 Dec 2019	05 Jul 2019
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION method limit/base current history1 history2

Water	WC Method	>0.0601	NEG	NEG	NEG
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WEAR METALS method limit/base current history1 history2

Iron	ppm	ASTM D5185(m)	>200	0	0	0
Chromium	ppm	ASTM D5185(m)	>21	0	<1	0
Nickel	ppm	ASTM D5185(m)	>21	0	<1	0
Titanium	ppm	ASTM D5185(m)	>21	0	0	0
Silver	ppm	ASTM D5185(m)	>21	0	0	0
Aluminum	ppm	ASTM D5185(m)	>21	0	0	0
Lead	ppm	ASTM D5185(m)	>21	0	<1	<1
Copper	ppm	ASTM D5185(m)	>21	0	<1	<1
Tin	ppm	ASTM D5185(m)	>21	0	0	0
Antimony	ppm	ASTM D5185(m)	>21	0	<1	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

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	<1	0
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)		<1	<1	<1
Calcium	ppm	ASTM D5185(m)		0	<1	<1
Phosphorus	ppm	ASTM D5185(m)		267	247	243
Zinc	ppm	ASTM D5185(m)		1	2	2
Sulfur	ppm	ASTM D5185(m)		684	589	598
Lithium	ppm	ASTM D5185(m)		<1	<1	0

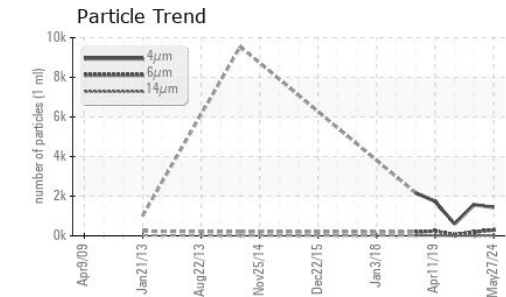
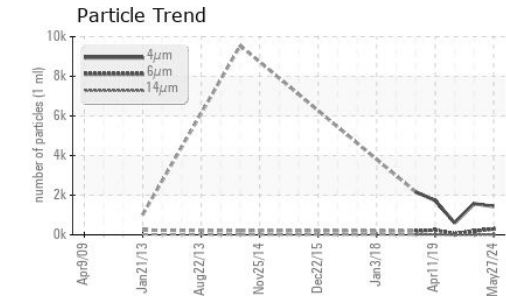
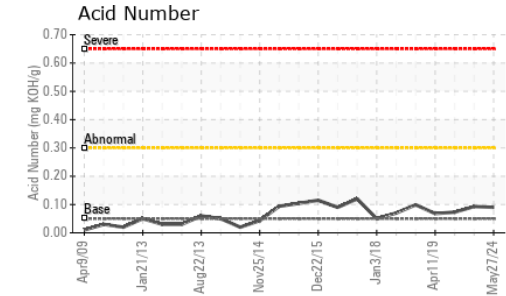
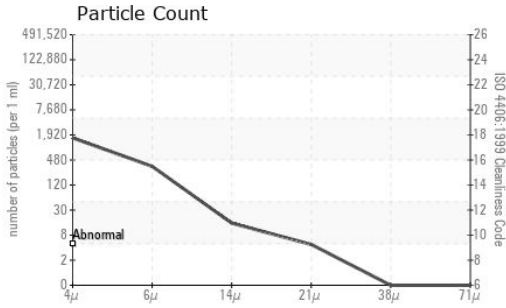
CONTAMINANTS method limit/base current history1 history2

Silicon	ppm	ASTM D5185(m)	>25	0	<1	<1
Sodium	ppm	ASTM D5185(m)	>21	<1	0	0
Potassium	ppm	ASTM D5185(m)	>20	0	<1	<1

FLUID CLEANLINESS method limit/base current history1 history2

Particles >4µm	ASTM D7647		1431	1573	598
Particles >6µm	ASTM D7647	>10240000	297	187	51
Particles >14µm	ASTM D7647	>10240000	13	7	1
Particles >21µm	ASTM D7647	>25600000	4	2	0
Particles >38µm	ASTM D7647	>6400000	0	0	0
Particles >71µm	ASTM D7647	>1600000	0	0	0
Oil Cleanliness	ISO 4406 (c)	>--/30/30	18/15/11	18/15/10	16/13/7

OIL ANALYSIS REPORT

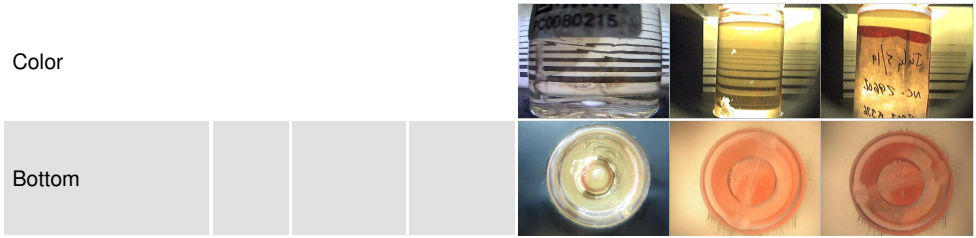


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.05	0.09	0.093	0.073

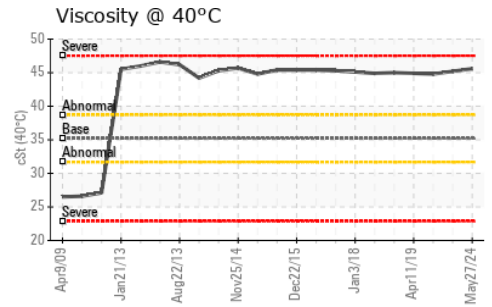
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	VLITE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.0601	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)	35.2	45.6	45.2	44.8

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0080215 **Received** : 28 May 2024
Lab Number : **02638033** **Tested** : 29 May 2024
Unique Number : 5787195 **Diagnosed** : 29 May 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: PRTCOUNT, TAN Man)

Suncor - Terra Nova Projects
 Scotia Centre, 235 Water Street
 St. John's, NL
 CA A1C 1B6
 Contact: Josh Hynes
 joshynes@suncor.com
 T: (709)778-3575
 F: (709)724-2835

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.