

## **OIL ANALYSIS REPORT**

Sample Rating Trend

NORMAL



#### Area KANSAS/44 Machine Io 20.021L [KANSAS^44] Component Right Final Drive

# MOBIL MOBILUBE HD 85W140 (0 GAL)

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#### 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.

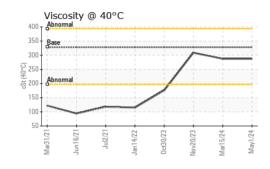
#### Fluid Condition

The condition of the oil is acceptable for the time in service.

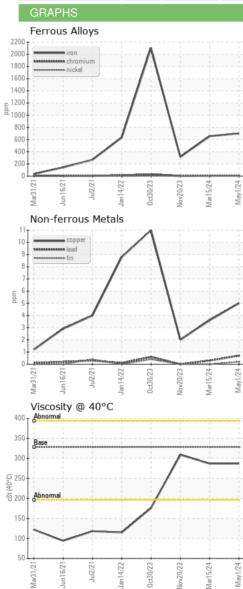
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0918213	WC0862591	WC0833917
Sample Date		Client Info		01 May 2024	15 Mar 2024	20 Nov 2023
Machine Age	hrs	Client Info		2982	2874	2738
Oil Age	hrs	Client Info		2680	194	58
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	N	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm		>800	700	655	314
Chromium	ppm	ASTM D5185m		8	8	4
Nickel	ppm	ASTM D5185m		2	2	<1
Titanium	ppm	ASTM D5185m		2	2	<1
Silver	ppm	ASTM D5185m	>2	- <1	0	0
Aluminum	ppm	ASTM D5185m		27	21	4
Lead	ppm	ASTM D5185m	>10	<1	<1	0
Copper	ppm	ASTM D5185m	>75	5	4	2
Tin	ppm	ASTM D5185m	>8	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
-						
Boron	ppm	ASTM D5185m		153	183	171
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m		153 0	183 0	171 0
Barium	ppm	ASTM D5185m		0	0	0
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m		0 1	0 <1	0 <1
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 1 5	0 <1 4	0 <1 2
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 1 5 6	0 <1 4 6	0 <1 2 2
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 1 5 6 143	0 <1 4 6 178	0 <1 2 2 63
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 1 5 6 143 1127	0 <1 4 6 178 910	0 <1 2 63 991
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 1 5 6 143 1127 125 34133	0 <1 4 6 178 910 127	0 <1 2 2 63 991 56
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >400	0 1 5 6 143 1127 125 34133	0 <1 4 6 178 910 127 24111	0 <1 2 63 991 56 29566
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 1 5 6 143 1127 125 34133 current	0 <1 4 6 178 910 127 24111 history1	0 <1 2 2 63 991 56 29566 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	>400	0 1 5 6 143 1127 125 34133 current 150	0 <1 4 6 178 910 127 24111 history1 137	0 <1 2 63 991 56 29566 history2 50
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	>400	0 1 5 6 143 1127 125 34133 current 150 4	0 <1 4 6 178 910 127 24111 history1 137 3	0 <1 2 2 63 991 56 29566 history2 50 0
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>400 >20	0 1 5 6 143 1127 125 34133 current 150 4 13 current MODER	0 <1 4 6 178 910 127 24111 <b>history1</b> 137 3 10	0 <1 2 2 63 991 56 29566 history2 50 0 5
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>400 >20 limit/base	0 1 5 6 143 1127 125 34133 current 150 4 13 current	0 <1 4 6 178 910 127 24111 history1 137 3 10 history1	0 <1 2 2 63 991 56 29566 history2 50 0 5 5 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>400 >20 limit/base NONE	0 1 5 6 143 1127 125 34133 current 150 4 13 current MODER NONE NONE	0 <1 4 6 178 910 127 24111 137 3 10 <b>history1</b> MODER NONE NONE	0 <1 2 2 63 991 56 29566 <b>history2</b> 50 0 5 50 0 5 <b>history2</b> LIGHT NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Yisual	>400 >20 limit/base NONE NONE	0 1 5 6 143 1127 125 34133 current 150 4 13 current MODER NONE	0 <1 4 6 178 910 127 24111 137 3 10 137 3 10 history1 MODER NONE	0 <1 2 2 63 991 56 29566 history2 50 0 5 50 0 5 <i>history2</i> LIGHT NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Yisual *Visual	>400 >20 limit/base NONE NONE NONE	0 1 5 6 143 1127 125 34133 current 150 4 13 current MODER NONE NONE	0 <1 4 6 178 910 127 24111 137 3 10 <b>history1</b> MODER NONE NONE	0 <1 2 2 63 991 56 29566 <b>history2</b> 50 0 5 50 0 5 <b>history2</b> LIGHT NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m *Visual *Visual *Visual	>400 >20 limit/base NONE NONE NONE NONE	0 1 5 6 143 1127 125 34133 <u>current</u> 150 4 13 <u>current</u> MODER NONE NONE MODER	0 <1 4 6 178 910 127 24111 137 3 10 <b>history1</b> MODER NONE NONE NONE NONE	0 <1 2 2 63 991 56 29566 history2 50 0 55 history2 LIGHT NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL VISUAL Vhite Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Yuisual *Visual *Visual *Visual *Visual	>400 >20 limit/base NONE NONE NONE NONE NONE	0 1 5 6 143 1127 125 34133 current 150 4 13 current MODER NONE NONE MODER NONE	0 <1 4 6 178 910 127 24111 137 3 10 <u>history1</u> MODER NONE NONE NONE NONE NONE	0 <1 2 2 63 991 56 29566 history2 50 0 55 history2 LIGHT NONE NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual *Visual	>400 >20 limit/base NONE NONE NONE NONE NONE	0 1 5 6 143 1127 125 34133 Current 150 4 13 Current MODER NONE NONE NONE NONE NONE NONE	0 <1 4 6 178 910 127 24111 137 3 10 137 3 10 <b>history1</b> MODER NONE NONE NONE NONE NONE NONE	0 <1 2 2 63 991 56 29566 history2 50 0 5 5 history2 LIGHT NONE NONE NONE NONE NONE NONE NONE
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL VISUAL Vhite Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>400 >20 Iimit/base NONE NONE NONE NONE NONE NONE NONE NON	0 1 5 6 143 1127 125 34133 Current 150 4 13 Current MODER NONE NONE NONE NONE NONE NONE NONE NONE	0 <1 4 6 178 910 127 24111 137 3 10 137 3 10 <b>history1</b> MODER NONE NONE NONE NONE NONE NONE NONE NO	0 <1 2 2 63 991 56 29566 bistory2 50 0 5 5 bistory2 LIGHT NONE NONE NONE NONE NONE NONE NONE NON
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	>400 >20 Iinit/base NONE NONE NONE NONE NONE NONE NONE NORML NORML	0 1 5 6 143 1127 125 34133 current 150 4 13 current MODER NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	0 <1 4 6 178 910 127 24111 137 3 10 137 3 10 NONE NONE NONE NONE NONE NONE NONE NON	0 <1 2 2 63 991 56 29566 <b>history2</b> 50 0 5 5 <b>history2</b> LIGHT NONE NONE NONE NONE NONE NONE NONE NON

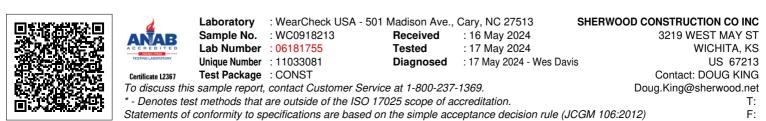


### **OIL ANALYSIS REPORT**



FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	328	287	287	309
SAMPLE IMAG	ES	method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image





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Submitted By: JESSE HAAS Page 2 of 2