

OIL ANALYSIS REPORT

Area OKLAHOMA 2013 MACK 10277

Diesel Engine

Fluid MYSTIK JT-8 SYN SUPER HD 15W40 (9 GAL)

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

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Sample Rating Trend

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0929930	WC0899614	WC0899606
Sample Date		Client Info		09 Apr 2024	06 Mar 2024	05 Feb 2024
Machine Age	hrs	Client Info		1300	12975	6688
Oil Age	hrs	Client Info		1126	6706	1084
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	10	10	10
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>5	0	0	<1
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	3
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	3	3	3
Tin	ppm	ASTM D5185m	>15	<1	0	1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 27	history1 31	history2 31
	ppm ppm		limit/base		· · · · · ·	
Boron		ASTM D5185m	limit/base	27	31	31
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	27 0	31 0	31 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	27 0 18	31 0 19	31 0 8
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	27 0 18 <1	31 0 19 <1	31 0 8 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	27 0 18 <1 464	31 0 19 <1 417	31 0 8 <1 292
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	27 0 18 <1 464 1731	31 0 19 <1 417 1805	31 0 8 <1 292 1744
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	27 0 18 <1 464 1731 1037	31 0 19 <1 417 1805 999	31 0 8 <1 292 1744 923
Boron 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	27 0 18 <1 464 1731 1037 1196	31 0 19 <1 417 1805 999 1162	31 0 8 <1 292 1744 923 1110
Boron 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	27 0 18 <1 464 1731 1037 1196 4085	31 0 19 <1 417 1805 999 1162 4062	31 0 8 <1 292 1744 923 1110 3382
Boron 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	limit/base	27 0 18 <1 464 1731 1037 1196 4085 current	31 0 19 <1 417 1805 999 1162 4062 history1	31 0 8 <1 292 1744 923 1110 3382 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	limit/base	27 0 18 <1 464 1731 1037 1196 4085 current 5	31 0 19 <1 417 1805 999 1162 4062 history1 5	31 0 8 <1 292 1744 923 1110 3382 history2 6
Boron 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 ASTM D5185m ASTM D5185m	limit/base	27 0 18 <1 464 1731 1037 1196 4085 <u>current</u> 5 7	31 0 19 <1 417 1805 999 1162 4062 history1 5 7	31 0 8 <1 292 1744 923 1110 3382 history2 6 8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20	27 0 18 <1 464 1731 1037 1196 4085 <u>current</u> 5 7 2	31 0 19 <1 417 1805 999 1162 4062 history1 5 7 2	31 0 8 <1 292 1744 923 1110 3382 history2 6 8 8 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base	27 0 18 <1 464 1731 1037 1196 4085 current 5 7 2 2	31 0 19 <1 417 1805 999 1162 4062 history1 5 7 2 2 history1	31 0 8 <1 292 1744 923 1110 3382 history2 6 8 2 2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >4	27 0 18 <1 464 1731 1037 1196 4085 <i>current</i> 5 7 2 2 <i>current</i> 0.2	31 0 19 <1 417 1805 999 1162 4062 history1 5 7 2 history1 0.2	31 0 8 <1 292 1744 923 1110 3382 history2 6 8 2 2 history2 0.2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >4 >20	27 0 18 <1 464 1731 1037 1196 4085 <i>current</i> 5 7 2 2 <i>current</i> 0.2 9.0	31 0 19 <1 417 1805 999 1162 4062 history1 5 7 2 history1 0.2 9.1	31 0 8 <1 292 1744 923 1110 3382 history2 6 8 2 history2 0.2 9.9
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >4 >20 >30 limit/base	27 0 18 <1 464 1731 1037 1196 4085 current 5 7 2 2 current 0.2 9.0 21.9	31 0 19 <1 417 1805 999 1162 4062 history1 5 7 2 history1 0.2 9.1 21.9	31 0 8 <1 292 1744 923 1110 3382 history2 6 8 2 2 history2 0.2 9.9 22.4

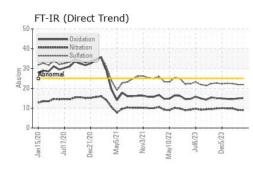


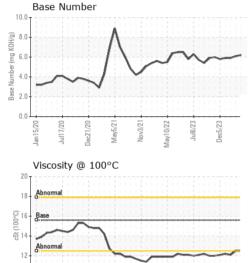
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OIL ANALYSIS REPORT





May5/21.

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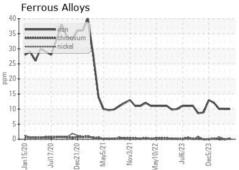
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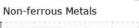
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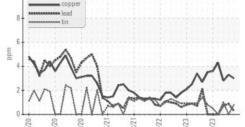
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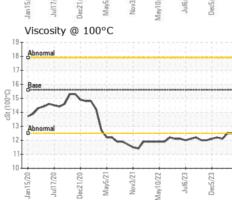
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.6	12.5	12.5	12.1

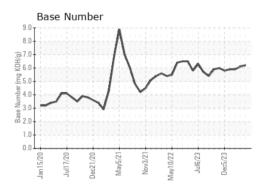
GRAPHS











Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 LIBERTY DISPOSAL Sample No. : WC0929930 6401 S EASTERN AVE Received : 15 Apr 2024 Lab Number : 06149392 Tested : 16 Apr 2024 OKLAHOMA CITY, OK Unique Number : 10979470 Diagnosed : 17 Apr 2024 - Don Baldridge US 73149 Test Package : FLEET Contact: M Rutherford Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. M.Rutherford@ldi89.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: F:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: SEAOKL [WUSCAR] 06149392 (Generated: 04/17/2024 19:20:22) Rev: 1

Contact/Location: M Rutherford - SEAOKL Page 2 of 2