

# **OIL ANALYSIS REPORT**

OKLAHOMA/102/EG - DOZER 35.99L [OKLAHOMA^102^EG - DOZER] **Right Final Drive** 

Fluid {not provided} (--- GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

Area

#### 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 Number		Client Info		WC0713141	WC0726333	WC0643066
Sample Date		Client Info		22 Aug 2022	15 Aug 2022	17 Jan 2022
Machine Age	hrs	Client Info		8799	8800	8317
Oil Age	hrs	Client Info		500	300	2959
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	SEVERE
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	ASTM D5185m	>500	68	69	<b>4</b> 914
Chromium	ppm	ASTM D5185m	>10	1	1	<u> </u>
Nickel	ppm	ASTM D5185m		<1	0	1
Titanium	ppm	ASTM D5185m		<1	<1	5
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>25	5	9	66
Lead	ppm	ASTM D5185m	>25	<1	<1	<1
Copper	ppm	ASTM D5185m	>50	1	1	5
Tin	ppm	ASTM D5185m	>10	1	<1	0
Antimony	ppm	ASTM D5185m				0
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 15	history1 8	history2 8
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 15 0	history1 8 0	history2 8 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 15 0 3	history1 8 0 3	history2 8 0 6
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 15 0 3 <1	history1 8 0 3 1	history2 8 0 6 11
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 15 0 3 <1 26	history1 8 0 3 1 27	history2 8 0 6 11 34
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 15 0 3 <1 26 2914	history1 8 0 3 1 27 3064	history2 8 0 6 11 34 3163
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current           15           0           3           <1           26           2914           968	history1 8 0 3 1 27 3064 1088	history2 8 0 6 11 34 3163 1061
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current           15           0           3           <1           26           2914           968           1218	history1  8  0  3  1  27  3064  1088  1331	history2           8           0           6           11           34           3163           1061           1270
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current           15           0           3           <1           26           2914           968           1218           8074	history1  8  0  3  1  27  3064  1088  1331  9549	history2 8 0 6 11 34 3163 1061 1270 12911
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current           15           0           3           <1           26           2914           968           1218           8074           current	history1  8  0  3  1  27  3064  1088  1331  9549  history1	history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	methodASTM D5185mASTM D5185m	limit/base limit/base >75	current           15           0           3           <1           26           2914           968           1218           8074           current           20	history1         8         0         3         1         27         3064         1088         1331         9549         history1         39	history2 8 0 6 11 34 3163 1061 1270 12911 history2 ▲ 362
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	methodASTM D5185mASTM D5185m	limit/base	current           15           0           3           <1           26           2914           968           1218           8074           current           20           0	history1         8         0         3         1         27         3064         1088         1331         9549         history1         39         <1	<pre>history2      8     0     6     11     34     3163     1061     1270     12911      history2      362     6</pre>
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	methodASTM D5185mASTM D5185m	limit/base limit/base >75 >20	current         15         0         3         <1         26         2914         968         1218         8074         current         20         0         0	history1         8         0         3         1         27         3064         1088         1331         9549         history1         39         <1         3	<ul> <li>history2</li> <li>8</li> <li>0</li> <li>6</li> <li>11</li> <li>34</li> <li>3163</li> <li>1061</li> <li>1270</li> <li>12911</li> <li>history2</li> <li>362</li> <li>6</li> <li>15</li> </ul>
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	limit/base limit/base >75 >20 limit/base	current         15         0         3         <1         26         2914         968         1218         8074         current         20         0         0         0         current	history1         8         0         3         1         27         3064         1088         1331         9549         history1         39         <1         3         +istory1         3         history1	<ul> <li>history2</li> <li>8</li> <li>0</li> <li>6</li> <li>11</li> <li>34</li> <li>3163</li> <li>1061</li> <li>1270</li> <li>12911</li> <li>history2</li> <li>362</li> <li>6</li> <li>15</li> <li>history2</li> </ul>
ADDITIVES Boron 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	method ASTM D5185m ASTM D5185m Yusual	limit/base ////////////////////////////////////	current         15         0         3         <1         26         2914         968         1218         8074         current         20         0	history1         8         0         3         1         27         3064         1088         1331         9549         history1         39         <1         3         history1         NONE	<ul> <li>history2</li> <li>8</li> <li>0</li> <li>6</li> <li>11</li> <li>34</li> <li>3163</li> <li>1061</li> <li>1270</li> <li>12911</li> <li>history2</li> <li>362</li> <li>6</li> <li>15</li> <li>history2</li> <li>NONE</li> </ul>
ADDITIVES Boron 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	methodASTM D5185mASTM D5185m	limit/base	current         15         0         3         <1         26         2914         968         1218         8074         current         20         0         0         0         0         0         0         0         NONE         NONE	history1         8         0         3         1         27         3064         1088         1331         9549         history1         39         <1         3         history1         NONE         NONE	<ul> <li>history2</li> <li>8</li> <li>0</li> <li>6</li> <li>11</li> <li>34</li> <li>3163</li> <li>1061</li> <li>1270</li> <li>12911</li> <li>history2</li> <li>362</li> <li>6</li> <li>15</li> <li>history2</li> <li>NONE</li> <li>NONE</li> <li>NONE</li> </ul>
ADDITIVES Boron 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	method ASTM D5185m ASTM D5185m XBTM D5185m ASTM D5185m ASTM D5185m	limit/base	current         15         0         3         <1         26         2914         968         1218         8074         current         20         0         0         current         NONE         NONE         NONE         NONE	history1         8         0         3         1         27         3064         1088         1331         9549         history1         39         <1         3         history1         3         history1         NONE         NONE         NONE         NONE	<ul> <li>history2</li> <li>8</li> <li>0</li> <li>6</li> <li>11</li> <li>34</li> <li>3163</li> <li>1061</li> <li>1270</li> <li>12911</li> <li>history2</li> <li>362</li> <li>6</li> <li>15</li> <li>history2</li> <li>NONE</li> </ul>
ADDITIVES Boron 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	method ASTM D5185m ASTM D5185m Visual *Visual	limit/base ////////////////////////////////////	current         15         0         3         <1         26         2914         968         1218         8074         current         20         0         0         current         20         0         current         NONE         NONE         NONE         NONE         NONE         NONE         NONE         NONE         NONE	history1         8         0         3         1         27         3064         1088         1331         9549         history1         39         <1         3         history1         30         NONE         NONE	<ul> <li>history2</li> <li>8</li> <li>0</li> <li>6</li> <li>11</li> <li>34</li> <li>3163</li> <li>1061</li> <li>1270</li> <li>12911</li> <li>history2</li> <li>▲ 362</li> <li>6</li> <li>15</li> <li>history2</li> <li>NONE</li> </ul>

Report Id: SHEWIC [WUSCAR] 05628118 (Generated: 04/16/2024 05 Free Water

Sand/Dirt

Odor

Appearance

**Emulsified Water** 

\*Visual

\*Visual

\*Visual

\*Visual

scalar \*Visual

scalar

scalar

scalar

scalar

NONE

NORML

NORML

>0.2

NONE

NORML

NORML

NEG

NEG

NONE

NORML

NORML

NEG

NONE

NORML

NORML

NEG



## **OIL ANALYSIS REPORT**



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		186	192	193
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image



