

#### Machine Id H/R JAW CRUSHER 5011 DRIVE Component Gearbox Fluid SHELL OMALA S2 G 220 (45 GAL)

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

### **WEAR**

All component wear rates are normal.

## CONTAMINATION

Elemental levels of silicon (Si) and aluminum (AI) indicate aluminasilicate (coarse dirt) ingress.

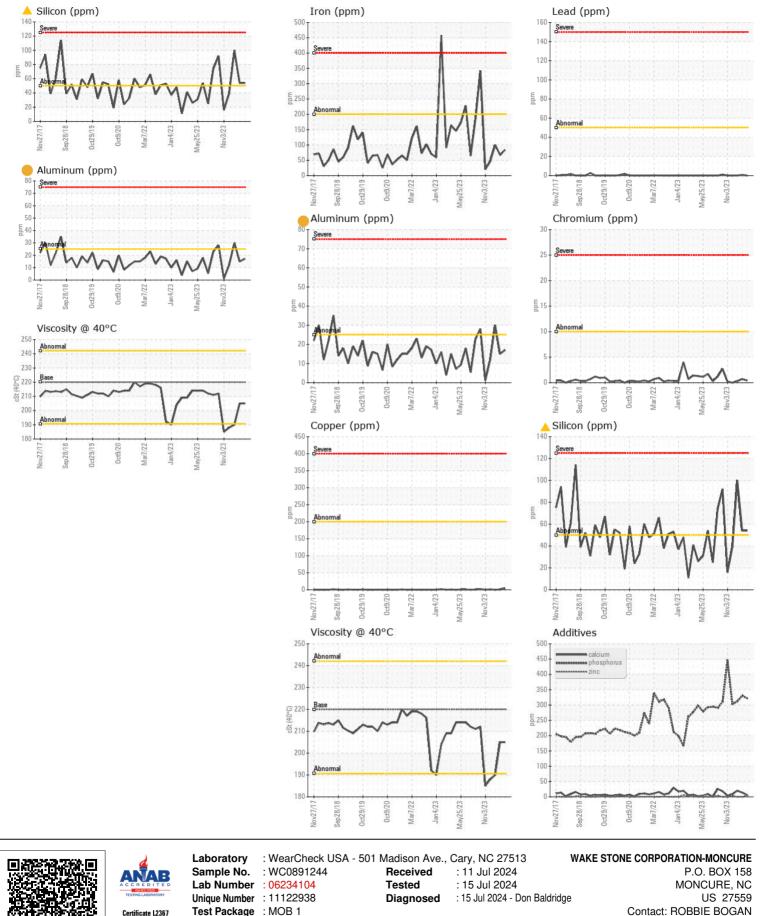
# FLUID CONDITION

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

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Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0891244	WC0921830	WC0891250
Sample Date		Client Info		26 Jun 2024	25 Apr 2024	31 Jan 2024
Machine Age	hrs	Client Info		20838	20533	203
Oil Age	hrs	Client Info		324	506	719
Filter Age	hrs	Client Info		324	506	719
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>200	84	67	100
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	<1	<1	<1
Titanium	ppm	ASTM D5185m		2	2	2
Silver	ppm	ASTM D5185m		<1	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>1</b> 7	<b>1</b> 5	<b>3</b> 0
Lead	ppm	ASTM D5185m	>50	0	<1	<1
Copper	ppm	ASTM D5185m	>200	4	<1	0
Tin	ppm	ASTM D5185m	>10	0	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
0'11'		AOTH DEADE	50	A = A		4
Silicon	ppm	ASTM D5185m	>50	▲ 54 C	▲ 54	▲ 100 ¬
Potassium	ppm ppm	ASTM D5185m	>20	6	5	7
Potassium Water	ppm	ASTM D5185m WC Method	>20 >0.2	6 NEG	5 NEG	7 NEG
Potassium Water Silt	ppm scalar	ASTM D5185m WC Method *Visual	>20 >0.2 NONE	6 NEG NONE	5 NEG LIGHT	7 NEG NONE
Potassium Water Silt Debris	ppm scalar scalar	ASTM D5185m WC Method *Visual *Visual	>20 >0.2 NONE NONE	6 NEG NONE NONE	5 NEG LIGHT NONE	7 NEG NONE NONE
Potassium Water Silt Debris Sand/Dirt	ppm scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual	>20 >0.2 NONE NONE NONE	6 NEG NONE NONE NONE	5 NEG LIGHT NONE NONE	7 NEG NONE NONE NONE
Potassium Water Silt Debris Sand/Dirt Appearance	ppm scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>20 >0.2 NONE NONE NONE NORML	6 NEG NONE NONE NONE NORML	5 NEG LIGHT NONE NONE NORML	7 NEG NONE NONE NONE NORML
Potassium Water Silt Debris Sand/Dirt	ppm scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual	>20 >0.2 NONE NONE NONE	6 NEG NONE NONE NONE	5 NEG LIGHT NONE NONE	7 NEG NONE NONE NONE
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm scalar scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>20 >0.2 NONE NONE NORML NORML	6 NEG NONE NONE NORML NORML NEG	5 NEG LIGHT NONE NONE NORML NORML NEG	7 NEG NONE NONE NORML NORML NEG
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 >0.2 NONE NONE NORML NORML >0.2	6 NEG NONE NONE NORML NORML NEG 3	5 NEG LIGHT NONE NORML NORML NEG 4	7 NEG NONE NONE NORML NORML NEG 10
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	<ul> <li>&gt;20</li> <li>&gt;0.2</li> <li>NONE</li> <li>NORME</li> <li>NORML</li> <li>&gt;0.2</li> <li>4.4</li> </ul>	6 NEG NONE NONE NORML NORML NEG 3 2	5 NEG LIGHT NONE NORML NORML NEG 4 2	7 NEG NONE NONE NORML NORML NEG 10 3
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	<ul> <li>&gt;20</li> <li>&gt;0.2</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>&gt;0.2</li> <li>4.4</li> <li>0.0</li> </ul>	6 NEG NONE NONE NORML NORML NEG 3 2 1	5 NEG LIGHT NONE NORML NORML NEG 4 2 0	7 NEG NONE NONE NORML NORML NEG 10 3 0
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	<ul> <li>&gt;20</li> <li>&gt;0.2</li> <li>NONE</li> <li>NORME</li> <li>NORML</li> <li>&gt;0.2</li> <li>4.4</li> </ul>	6 NEG NONE NONE NORML NORML NEG 3 2 1 2	5 NEG LIGHT NONE NORML NORML NEG 4 2 0 <1	7 NEG NONE NONE NORML NORML NEG 10 3 0 0
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<ul> <li>&gt;20</li> <li>&gt;0.2</li> <li>NONE</li> <li>NORME</li> <li>NORML</li> <li>&gt;0.2</li> <li>4.4</li> <li>0.0</li> <li>0</li> </ul>	6 NEG NONE NONE NORML NORML NEG 3 2 1 <1 <1	5 NEG LIGHT NONE NORML NORML NEG 4 2 0 <1 1	7 NEG NONE NONE NORML NORML NEG 10 3 0 0 0 2
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<ul> <li>&gt;20</li> <li>&gt;0.2</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>&gt;0.2</li> <li>4.4</li> <li>0.0</li> <li>0</li> <li>0</li> </ul>	6 NEG NONE NONE NORML NORML NEG 3 2 1 <1 <1 <1 <1 4	5 NEG LIGHT NONE NORML NORML NEG 4 2 0 <1 1 3	7 NEG NONE NONE NORML NORML NEG 10 3 0 0 0 2 6
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<ul> <li>&gt;20</li> <li>&gt;0.2</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>&gt;0.2</li> <li>4.4</li> <li>0.0</li> <li>0</li> <li>0</li> <li>0</li> </ul>	6 NEG NONE NONE NORML NORML NEG 3 2 1 <1 <1 <1 <1 4 6	5 NEG LIGHT NONE NORML NORML NEG 4 2 0 <1 1 3 14	7 NEG NONE NONE NORML NORML NEG 10 3 0 0 2 6 6 20
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<ul> <li>&gt;20</li> <li>&gt;0.2</li> <li>NONE</li> <li>NORME</li> <li>NORML</li> <li>&gt;0.2</li> <li>4.4</li> <li>0.0</li> <li>0</li> <li>0</li> <li>0</li> <li>215</li> </ul>	6 NEG NONE NONE NORML NORML NEG 3 2 1 <1 <1 <1 <1 <1 4 6 322	5 NEG LIGHT NONE NORML NORML NEG 4 2 0 4 2 0 ( 1 1 3 14 330	7 NEG NONE NONE NORML NORML NEG 10 3 0 0 2 6 20 312
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<ul> <li>&gt;20</li> <li>&gt;0.2</li> <li>NONE</li> <li>NONE</li> <li>NORML</li> <li>NORML</li> <li>&gt;0.2</li> <li>4.4</li> <li>0.0</li> <li>0</li> <li>0</li> <li>215</li> <li>0</li> </ul>	6 NEG NONE NONE NORML NORML NEG 3 2 1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	5 NEG LIGHT NONE NORML NORML NEG 4 2 0 <1 1 3 14 330 0 0	7 NEG NONE NONE NORML NORML NEG 10 3 0 0 2 6 20 5 6 20 312 0
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Malybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<ul> <li>&gt;20</li> <li>&gt;0.2</li> <li>NONE</li> <li>NORME</li> <li>NORML</li> <li>&gt;0.2</li> <li>4.4</li> <li>0.0</li> <li>0</li> <li>0</li> <li>0</li> <li>215</li> </ul>	6 NEG NONE NONE NORML NORML NEG 3 2 1 <1 <1 <1 <1 <1 4 6 322	5 NEG LIGHT NONE NORML NORML NEG 4 2 0 4 2 0 ( 1 1 3 14 330	7 NEG NONE NONE NORML NORML NEG 10 3 0 0 2 6 20 312

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Contact/Location: ROBBIE BOGAN - WAKMON



Test Package : MOB 1 Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. robbiebogan@wakestonecorp.com \* - 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)

Contact/Location: ROBBIE BOGAN - WAKMON Page 2 of 2

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