

Machine Id **5051** Component **Right Final Drive** Fluid **{not provided} (--- 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

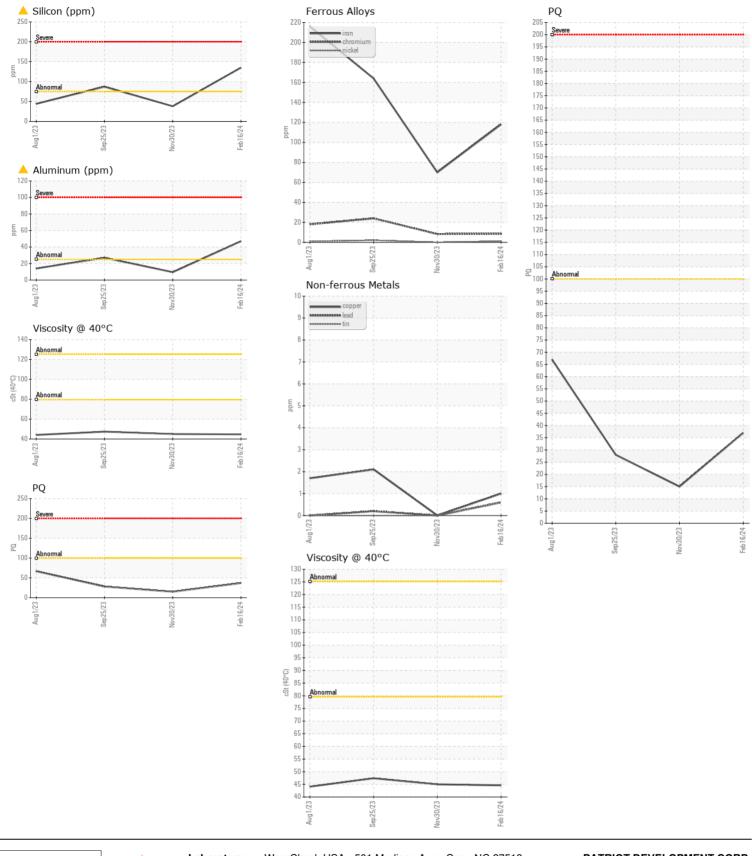
Elemental levels of silicon (Si) and aluminum (Al) indicate aluminasilicate (coarse dirt) ingress.

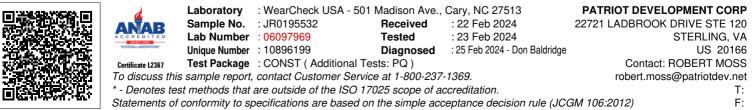
FLUID CONDITION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0195532	JR0195083	JR0170110
Sample Date		Client Info		16 Feb 2024	30 Nov 2023	25 Sep 2023
Machine Age	hrs	Client Info		1772	1389	970
Oil Age	hrs	Client Info		500	500	1000
Filter Age	hrs	Client Info		500	500	1000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	ABNORMAL
PQ		ASTM D8184		37	15	28
Iron	ppm	ASTM D5185m	>500	118	70	164
Chromium	ppm	ASTM D5185m	>10	8	8	24
Nickel	ppm	ASTM D5185m	>10	1	0	2
Titanium	ppm	ASTM D5185m		4	<1	2
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>25	4 7	10	▲ 27
Lead	ppm	ASTM D5185m	>25	<1	0	<1
Copper	ppm	ASTM D5185m	>50	1	0	2
Tin	ppm	ASTM D5185m	>10	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>75	1 35	38	8 7
Silicon Potassium		ASTM D5185m ASTM D5185m	>75 >20	▲ 135 13	38 0	▲ 87 6
Silicon Potassium Water	ppm ppm	ASTM D5185m ASTM D5185m WC Method	>75 >20 >0.2	▲ 135 13 NEG	38 0 NEG	▲ 87 6 NEG
Silicon Potassium Water Silt	ppm ppm scalar	ASTM D5185m ASTM D5185m WC Method *Visual	>75 >20 >0.2 NONE	 135 13 NEG NONE 	38 0 NEG NONE	 87 6 NEG NONE
Silicon Potassium Water Silt Debris	ppm ppm scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual	>75 >20 >0.2 NONE NONE	 135 13 NEG NONE NONE 	38 0 NEG NONE NONE	 87 6 NEG NONE NONE
Silicon Potassium Water Silt Debris Sand/Dirt	ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual	>75 >20 >0.2 NONE NONE NONE	 135 13 NEG NONE NONE NONE 	38 0 NEG NONE NONE NONE	 87 6 NEG NONE NONE NONE
Silicon Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>75 >20 >0.2 NONE NONE NONE NORML	 135 13 NEG NONE NONE NONE NORML 	38 0 NEG NONE NONE NONE NORML	 87 6 NEG NONE NONE NONE NORML
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	>75 >20 >0.2 NONE NONE NONE NORML NORML	 135 13 NEG NONE NONE NONE NORE NORML 	38 0 NEG NONE NONE NONE NORML NORML	 87 6 NEG NONE NONE NONE NORML NORML
Silicon Potassium Water Silt Debris Sand/Dirt Appearance	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>75 >20 >0.2 NONE NONE NONE NORML	 135 13 NEG NONE NONE NONE NORML 	38 0 NEG NONE NONE NONE NORML	 87 6 NEG NONE NONE NONE NORML
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual	>75 >20 >0.2 NONE NONE NONE NORML NORML	 135 13 NEG NONE NONE NONE NORE NORML 	38 0 NEG NONE NONE NONE NORML NORML	 87 6 NEG NONE NONE NONE NORML NORML
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>75 >20 >0.2 NONE NONE NONE NORML NORML	 135 13 NEG NONE NONE NORE NORML NEG 	38 0 NEG NONE NONE NONE NORML NORML NEG	 87 6 NEG NONE NONE NORML NORML NEG
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	 135 13 NEG NONE NONE NORML NORML NEG <1 	38 0 NEG NONE NONE NORML NORML NEG 2	 87 6 NEG NONE NONE NORML NORML NEG 7
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm scalar scalar scalar scalar scalar scalar gpm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	135 13 NEG NONE NONE NORML NORML NEG <1 <1	38 0 NEG NONE NONE NORML NORML NEG 2 0	 87 6 NEG NONE NONE NORML NORML NEG 7 <1
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	 135 13 NEG NONE NONE NORML NORML NEG <1 <1 5 2 3 	38 0 NEG NONE NONE NORML NORML NEG 2 0 0 0 <1 <1	 87 6 NEG NONE NONE NORML NORML NEG 7 <1 0 3 4
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	 135 13 NEG NONE NORE NORML NORML NORML NORML S 2 3 8 	38 0 NEG NONE NONE NORML NORML NEG 2 0 0 <1 <1 <1 2	 87 6 NEG NONE NONE NORML NORML NEG 7 <1 0 3 4 9
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	 135 13 NEG NONE NORE NORML NORML NEG <1 <1 5 2 3 8 92 	38 0 NEG NONE NONE NORML NORML NEG 2 0 0 0 4 (1 <1 2 101	 87 6 NEG NONE NORML NORML NORML NEG 7 <11 0 3 4 9 178
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	 135 13 NEG NONE NONE NORML NORML NEG <1 <1 5 2 3 8 92 102 	38 0 NEG NONE NONE NORML NORML NEG 2 0 0 0 <1 <1 <1 2 101 189	 87 6 NEG NONE NORML NORML NEG 7 <1 0 3 4 9 178 840
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	 135 13 NEG NONE NORE NORML NORML NORML NEG <1 <1 5 2 3 8 92 102 31 	38 0 NEG NONE NONE NORML NORML NEG 2 0 0 <1 <1 <1 2 101 189 140	 87 6 NEG NONE NONE NORML NORML NEG 7 <1 0 3 4 9 178 840 1243
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NONE NORML NORML	 135 13 NEG NONE NONE NORML NORML NEG <1 <1 5 2 3 8 92 102 	38 0 NEG NONE NONE NORML NORML NEG 2 0 0 0 <1 <1 <1 2 101 189	 87 6 NEG NONE NORML NORML NEG 7 <1 0 3 4 9 178 840

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Page 2 of 2