

WEAR NORMAL CONTAMINATION SEVERE FLUID CONDITION NORMAL



#### Machine Id **CATERPILLAR 299D3 SL8301 (S/N JDY904881)** Component Hydraulic System Fluid

{not provided} (--- GAL)

# RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample.

### WEAR

All component wear rates are normal.

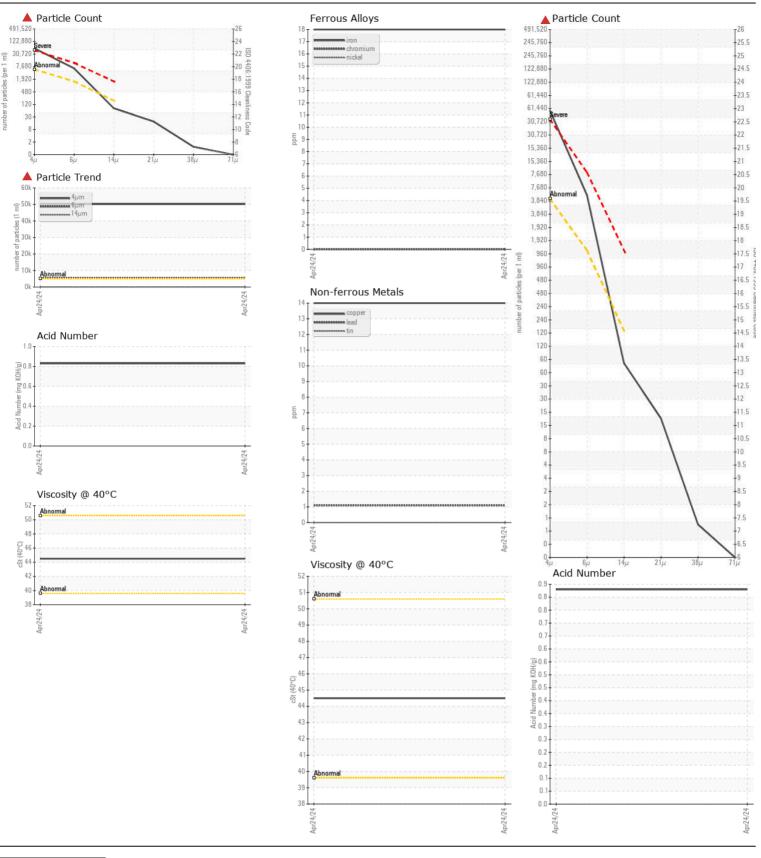
# CONTAMINATION

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

## FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC06160305		
Sample Date		Client Info		24 Apr 2024		
Machine Age	hrs	Client Info		1069		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Filter Changed		Client Info		N/A		
Sample Status				SEVERE		
Iron	ppm	ASTM D5185m	>20	18		
Chromium	ppm	ASTM D5185m	>10	0		
Nickel	ppm	ASTM D5185m	>10	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>10	1		
Lead	ppm	ASTM D5185m	>10	1		
Copper	ppm	ASTM D5185m	>75	14		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m	-	0		
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Silicon	ppm	ASTM D5185m	>20	2		
Potassium	ppm	ASTM D5185m	>20	<1		
Water		WC Method	>0.1	NEG		
Particles >4µm		ASTM D7647	>5000	<b>4</b> 50193		
Particles >6µm		ASTM D7647	>1300	<b>6</b> 5523		
Particles >14µm		ASTM D7647	>160	68		
Particles >21µm		ASTM D7647	>40	16		
Particles >38µm		ASTM D7647	>10	1		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>4</b> 23/20/13		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water		*Visual	>0.1	NEG		
Sodium	ppm	ASTM D5185m		2		
Boron	ppm	ASTM D5185m		5		
Barium	ppm	ASTM D5185m		<1		
Molybdenum	ppm	ASTM D5185m		3		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		31		
Calcium	ppm	ASTM D5185m		422		
Phosphorus	ppm	ASTM D5185m		761		
Zinc	ppm	ASTM D5185m		924		
Sulfur	ppm	ASTM D5185m		2279		
Acid Number (AN)	mg KOH/g	ASTM D8045		0.83		
Visc @ 40°C	cSt	ASTM D445		44.5		
1.00 @ 10 0	501					



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