

WEAR SEVERE CONTAMINATION SEVERE FLUID CONDITION ATTENTION



TPR-Houston Port Machine Id 110119 VOLVO EC330CL 110119

Right Final Drive

MOBIL MOBILUBE HD LS 80W90 (5 GAL)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

Gear wear is indicated.

CONTAMINATION

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

FLUID CONDITION

Confirm oil type. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DJJ0018930	DJJ0001453	DJJ020804
Sample Date		Client Info		11 Feb 2024	14 Sep 2020	26 Oct 2018
Machine Age	hrs	Client Info		12279	10154	8656
Oil Age	hrs	Client Info		0	500	1000
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	SEVERE	SEVERE
			500	7000	0705	4000
Iron	ppm	ASTM D5185m	>500	082	6705	1639
Chromium	ppm	ASTM D5185m	>10	61	58	A 19
Nickel	ppm	ASTM D5185m	>10	▲ 10 07	8	2
Litanium	ppm	ASTM D5185m		35	34	11
Silver	ppm	ASTM D5185m		0	13	0
Aluminum	ppm	ASTM D5185m	>25	A 247	▲ 258	9 4
Lead	ppm	ASTM D5185m	>25	7	10	4
Copper	ppm	ASTM D5185m	>50	16	18	2
Tin	ppm	ASTM D5185m	>10	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	1	0
White Metal	scalar	*Visual	NONE	NONE	LIGHT	A MODER
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>75	• 1854	1815	• 547
Silicon Potassium	ppm ppm	ASTM D5185m ASTM D5185m	>75 >20	1854 46	 1815 49 	 547 21
Silicon Potassium Water	ppm ppm	ASTM D5185m ASTM D5185m WC Method	>75 >20 >0.2	1854 46 NEG	 1815 49 NEG 	 547 21 NEG
Silicon Potassium Water Silt	ppm ppm scalar	ASTM D5185m ASTM D5185m WC Method *Visual	>75 >20 >0.2 NONE	 1854 46 NEG NONE 	 1815 49 NEG NONE 	 547 21 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	 1854 46 NEG NONE NONE 	 1815 49 NEG NONE NONE 	 547 21 NEG NONE NONE
Silicon Potassium Water Silt Debris Sand/Dirt	ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual	>75 >20 >0.2 NONE NONE NONE	 1854 46 NEG NONE NONE NONE 	 1815 49 NEG NONE NONE NONE 	 547 21 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	 1854 46 NEG NONE NONE NONE NORE 	 1815 49 NEG NONE NONE NONE NORML 	 547 21 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 NORME NORML	 1854 46 NEG NONE NONE NORML NORML 	 1815 49 NEG NONE NONE NORML NORML 	 547 21 NEG NONE NONE NORML NORML
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm ppm scalar 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 >0.2	 1854 46 NEG NONE NONE NORE NORML NEG 	 1815 49 NEG NONE NONE NORML NORML NEG 	 547 21 NEG NONE NONE NORML NORML 0.2%
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 *Visual ASTM D5185m	>75 >20 >0.2 NONE NONE NORML NORML >0.2	 1854 46 NEG NONE NONE NORML NORML NEG 24 	 1815 49 NEG NONE NONE NORML NORML NEG 21 	 547 21 NEG NONE NONE NORML 0.2% 12
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm ppm scalar scalar scalar scalar scalar scalar gpm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NORML NORML >0.2	 1854 46 NEG NONE NORE NORML NORML NEG 24 221 	 1815 49 NEG NONE NONE NORML NORML NEG 21 202 	 547 21 NEG NONE NONE NORML NORML 0.2% 12 158
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NORML NORML >0.2	 1854 46 NEG NONE NONE NORML NORML NEG 24 221 35 	 1815 49 NEG NONE NONE NORML NORML NEG 21 202 16 	 547 21 NEG NONE NONE NORML NORML 0.2% 12 158 2
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm ppm scalar scalar scalar scalar scalar scalar gpm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NORME NORML >0.2	 1854 46 NEG NONE NORML NORML NORML NEG 24 221 35 14 	 1815 49 NEG NONE NONE NORML NORML NEG 21 202 16 15 	 547 21 NEG NONE NONE NORML 0.2% 12 158 2 0
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 ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NORML NORML >0.2	 1854 46 NEG NONE NORML NORML NEG 24 221 35 14 43 	 1815 49 NEG NONE NONE NORML NORML NORML NEG 21 202 16 15 42 	 547 21 NEG NONE NONE NORML 0.2% 12 158 2 0 14
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 ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NORML NORML >0.2	 1854 46 NEG NONE NONE NORML NORML NEG 24 221 35 14 43 81 	 1815 49 NEG NONE NONE NORML NORML NEG 21 202 16 15 42 67 	 547 21 NEG NONE NORML NORML 0.2% 12 158 2 0 14 27
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 scalar ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NORML NORML >0.2	 1854 46 NEG NONE NORML NORML NORML NEG 24 221 35 14 43 81 1232 	 1815 49 NEG NONE NONE NORML NORML NEG 21 202 16 15 42 67 1074 	 547 21 NEG NONE NONE NORML 0.2% 12 158 2 0 14 27 538
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 scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NONE NORML >0.2	 1854 46 NEG NONE NORML NORML NEG 24 221 35 14 43 81 1232 1330 	 1815 49 NEG NONE NONE NORML NORML NEG 21 202 16 15 42 67 1074 901 	 547 21 NEG NONE NONE NORML 0.2% 12 158 2 0 14 27 538 1062
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 scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NORML NORML >0.2	 1854 46 NEG NONE NONE NORML NORML NEG 24 221 35 14 43 81 1232 1330 104 	 1815 49 NEG NONE NONE NORML NORML NEG 21 202 16 15 42 67 1074 901 112 	 547 21 NEG NONE NONE NORML 0.2% 12 158 2 0 14 27 538 1062 60
Silicon Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm scalar scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>75 >20 >0.2 NONE NORML NORML >0.2	 1854 46 NEG NONE NORML NORML NORML NEG 24 221 35 14 43 81 1232 1330 104 22367 	 1815 49 NEG NONE NONE NORML NORML NEG 21 202 16 15 42 67 1074 901 112 34552 	 547 21 NEG NONE NONE NORML 0.2% 12 158 2 0 14 27 538 1062 60 23546

Contact/Location: ROBERT BARKER - TEXHOUWC



robert.barker@texasportrecycling.com To discuss this sample report, contact Customer Service at 1-800-237-1369. * - 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) F: (713)921-5545

Contact/Location: ROBERT BARKER - TEXHOUWC

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