

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL





SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0661678	WC0570061	WC0542562
Sample Date		Client Info		23 Sep 2022	04 Apr 2022	15 Mar 2022
Machine Age	hrs	Client Info		40000	40000	40000
Oil Age	hrs	Client Info		500	500	500
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	3 .8
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	12	7	17
Chromium	ppm	ASTM D5185m	>20	1	<1	1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	<1	2
Lead	ppm	ASTM D5185m	>40	4	<1	2
Copper	ppm	ASTM D5185m	>330	6	<1	2
Tin	ppm	ASTM D5185m	>15	2	<1	<1
Antimony	ppm	ASTM D5185m				
Vanadium		LOTH DEVOE				
vanaulum	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm ppm	ASTM D5185m ASTM D5185m		0 0	0	<1 <1
			limit/base	-		
Cadmium		ASTM D5185m	limit/base 250	0	0	<1
Cadmium ADDITIVES	ppm	ASTM D5185m method		0 current	0 history1	<1 history2
Cadmium ADDITIVES Boron	ppm ppm	ASTM D5185m method ASTM D5185m	250	0 current 30	0 history1 13	<1 history2 15
Cadmium ADDITIVES Boron Barium	ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	250 10	0 current 30 0	0 history1 13 0	<1 history2 15 0
Cadmium ADDITIVES Boron Barium Molybdenum	ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	250 10	0 current 30 0 50	0 history1 13 0 58	<1 history2 15 0 60
Cadmium ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	0 current 30 0 50 <1	0 history1 13 0 58 <1	<1 history2 15 0 60 <1
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	0 current 30 0 50 <1 765	0 history1 13 0 58 <1 970	<1 history2 15 0 60 <1 988
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	0 current 30 0 50 <1 765 1160	0 history1 13 0 58 <1 970 1176	<1 history2 15 0 60 <1 988 1095
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150	0 current 30 0 50 <1 765 1160 769	0 history1 13 0 58 <1 970 1176 1060	<1 history2 15 0 60 <1 988 1095 1066
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350	0 current 30 0 50 <1 765 1160 769 941	0 history1 13 0 58 <1 970 1176 1060 1214	<1 history2 15 0 60 <1 988 1095 1066 1197 2861
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	0 current 30 0 50 <1 765 1160 769 941 2891	0 history1 13 0 58 <1 970 1176 1060 1214 2870	<1 history2 15 0 60 <1 988 1095 1066 1197 2861
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	0 current 30 0 50 <1 765 1160 769 941 2891 current	0 history1 13 0 58 <1 970 1176 1060 1214 2870 history1	<1 history2 15 0 60 <1 988 1095 1066 1197 2861 history2
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158	0 current 30 0 50 <1 765 1160 769 941 2891 current 14	0 history1 13 0 58 <1 970 1176 1060 1214 2870 history1 3	<1 history2 15 0 60 <1 988 1095 1066 1197 2861 history2 3
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158	0 current 30 0 50 <1 765 1160 769 941 2891 current 14 2	0 history1 13 0 58 <1 970 1176 1060 1214 2870 history1 3 1	<1 history2 15 0 60 <1 988 1095 1066 1197 2861 history2 3 4 0
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20	0 current 30 0 50 <1 765 1160 769 941 2891 current 14 2 1	0 history1 13 0 58 <1 970 1176 1060 1214 2870 history1 3 1 0	<1 history2 15 0 60 <1 988 1095 1066 1197 2861 history2 3 4 0
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20 limit/base	0 current 30 0 50 <1 765 1160 769 941 2891 current 14 2 1 1 current	0 history1 13 0 58 <1 970 1176 1060 1214 2870 history1 3 1 0 history1	<1 history2 15 0 60 <1
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20 limit/base	0 current 30 0 50 <1 765 1160 769 941 2891 current 14 2 1 current 0.1	0 history1 13 0 58 <1 970 1176 1060 1214 2870 history1 3 1 0 history1 0.4	<1 history2 15 0 60 <1 988 1095 1066 1197 2861 history2 3 4 0 history2 0.7
Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20 limit/base >6 >20	0 current 30 0 50 <1 765 1160 769 941 2891 current 14 2 1 current 0.1 8.4	0 history1 13 0 58 <1 970 1176 1060 1214 2870 history1 3 1 0 history1 0.4 6.3	<1 history2 15 0 60 <1 988 1095 1066 1197 2861 history2 3 4 0 history2 0.7 7.6 20.6
Cadmium Cadmium ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 imit/base >25 >158 >20 imit/base >6 >20	0 current 30 0 50 <1 765 1160 769 941 2891 current 14 2 1 current 0.1 8.4 21.6	0 history1 13 0 58 <1 970 1176 1060 1214 2870 history1 3 1 0 history1 0.4 6.3 19.7	<1 history2 15 0 60 <1 988 1095 1066 1197 2861 history2 3 4 0 history2 0.7 7.6

OSHKOSH MIXER 111

Component **Diesel Engine** Fluid

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

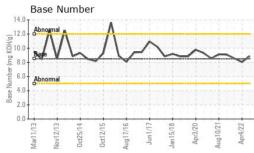
There is no indication of any contamination in the oil.

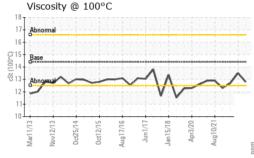
Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



OIL ANALYSIS REPORT







Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Certificate L2367

Laboratory

Sample No.

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