

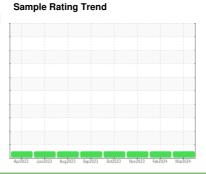
OIL ANALYSIS REPORT

WOOD PROCESSING EQUIPMENT Machine Id PLANER BANDER

Component

Hydraulic System

SHELL AW HYDRAULIC S2 46 (--- GAL)





DIAGNOSIS

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. The amount and size of particulates present in the system are acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PE0000698	PE06098280	PE0000733
Sample Date		Client Info		15 Mar 2024	22 Feb 2024	30 Nov 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	V	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		16	15	13
Iron	ppm	ASTM D5185m	>20	0	1	0
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>20	0	<1	0
Titanium	ppm	ASTM D5185m		1	1	0
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>20	3	<1	0
Lead	ppm	ASTM D5185m	>20	<1	<1	0
Copper	ppm	ASTM D5185m	>20	<1	1	6
Tin	ppm	ASTM D5185m	>20	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	<1	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 6	history1 8	history2 0
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	6	8	0
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	6 <1	8 5	0
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	6 <1 <1	8 5 1	0 0 0
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	6 <1 <1 0	8 5 1 <1	0 0 0 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	6 <1 <1 0	8 5 1 <1 9	0 0 0 <1 7
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	6 <1 <1 0 9 315	8 5 1 <1 9 304	0 0 0 <1 7 54
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	6 <1 <1 0 9 315 362	8 5 1 < 1 9 304 333	0 0 0 <1 7 54 311
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	6 <1 <1 0 9 315 362 439	8 5 1 <1 9 304 333 434	0 0 0 <1 7 54 311 385
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		6 <1 <1 0 9 315 362 439 2088	8 5 1 <1 9 304 333 434 2169	0 0 0 <1 7 54 311 385 2002
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	6 <1 <1 0 9 315 362 439 2088 current	8 5 1 < 1 9 304 333 434 2169 history1	0 0 0 <1 7 54 311 385 2002 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	6 <1 <1 0 9 315 362 439 2088 current	8 5 1 <1 9 304 333 434 2169 history1 2	0 0 0 <1 7 54 311 385 2002 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >15	6 <1 <1 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0	8 5 1 <1 9 304 333 434 2169 history1 2 5	0 0 0 <1 7 54 311 385 2002 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >15 >20	6 <1 <1 0 9 315 362 439 2088 current 2 9 1	8 5 1 <1 9 304 333 434 2169 history1 2 5 <1	0 0 0 <1 7 54 311 385 2002 history2 1 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >15 >20 limit/base	6 <1 <1 0 9 315 362 439 2088 current 2 9 1 current	8 5 1 <1 9 304 333 434 2169 history1 2 5 <1	0 0 0 <1 7 54 311 385 2002 history2 1 2 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >15 >20 limit/base >5000	6 <1 <1 0 9 315 362 439 2088 current 2 9 1 current 368	8 5 1 <1 9 304 333 434 2169 history1 2 5 <1 history1 165	0 0 0 <1 7 54 311 385 2002 history2 1 2 0 history2 198 66 13
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m	limit/base >15 >20 limit/base >5000 >1300	6 <1 <1 0 9 315 362 439 2088 current 2 9 1 current 368 96	8 5 1 <1 9 304 333 434 2169 history1 2 5 <1 history1 165 46	0 0 0 <1 7 54 311 385 2002 history2 1 2 0 history2 198
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m MEthod ASTM D5185m ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160	6 <1 <1 0 9 315 362 439 2088 current 2 9 1 current 368 96 9	8 5 1 <1 9 304 333 434 2169 history1 2 5 <1 history1 165 46 4	0 0 0 <1 7 54 311 385 2002 history2 1 2 0 history2 198 66 13
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	6 <1 <1 <0 9 315 362 439 2088 current 2 9 1 current 368 96 9 4	8 5 1 <1 9 304 333 434 2169 history1 2 5 <1 history1 165 46 4 1	0 0 0 <1 7 54 311 385 2002 history2 1 2 0 history2 198 66 13



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