

# **OIL ANALYSIS REPORT**

Sample Rating Trend



#### Machine Id **75S3 - V29** Component **Hydraulic System** Fluid SHELL TELLUS S2 M 46 (373 GAL)

#### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

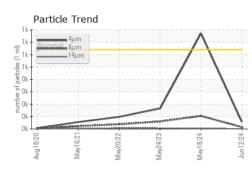
## Fluid Condition

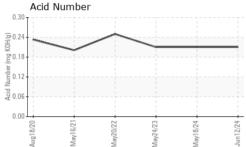
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

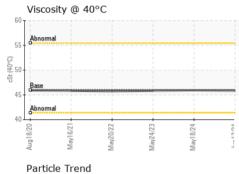
SAMPLE INFORM	<b>IATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0929852	WC0929851	WC0713593
Sample Date		Client Info		12 Jun 2024	18 May 2024	24 May 2023
Machine Age	yrs	Client Info		12	12	12
Oil Age	yrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				NORMAL	ATTENTION	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	0	<1	0
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	<1	0
Aluminum	ppm	ASTM D5185m	>20	0	0	<1
Lead	ppm	ASTM D5185m	>20	3	5	2
Copper	ppm	ASTM D5185m	>20	1	4	2
Tin	ppm	ASTM D5185m	>20	0	0	0
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m		0	0	0
Molybdenum Manganese Magnesium	ppm	ASTM D5185m		0	0	0
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m		0 0	0 <1	0 <1
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 0 7	0 <1 6	0 <1 11
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 7 29	0 <1 6 32	0 <1 11 33
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 7 29 217	0 <1 6 32 222	0 <1 11 33 224
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	limit/base	0 0 7 29 217 241	0 <1 6 32 222 254	0 <1 11 33 224 233
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		0 0 7 29 217 241 3163	0 <1 6 32 222 254 3109	0 <1 11 33 224 233 3276
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b>		0 0 7 29 217 241 3163 current	0 <1 6 32 222 254 3109 history1	0 <1 11 33 224 233 3276 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>15	0 0 7 29 217 241 3163 current 2	0 <1 6 32 222 254 3109 history1 2	0 <1 11 33 224 233 3276 history2 2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	>15	0 0 7 29 217 241 3163 current 2 2 2	0 <1 6 32 222 254 3109 history1 2 2	0 <1 11 33 224 233 3276 history2 2 2 2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	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 ASTM D5185m	>15 >20	0 0 7 29 217 241 3163 <u>current</u> 2 2 2 0	0 <1 6 32 222 254 3109 history1 2 2 2 0	0 <1 11 33 224 233 3276 history2 2 2 2 0
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>15 >20 limit/base >640	0 0 7 29 217 241 3163 <u>current</u> 2 2 2 0 0	0 <1 6 32 222 254 3109 history1 2 2 0 history1	0 <1 11 33 224 233 3276 history2 2 2 2 0 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>15 >20 limit/base >640	0 0 7 29 217 241 3163 <u>current</u> 2 2 2 0 <u>current</u> 56	0 <1 6 32 222 254 3109 history1 2 2 2 0 history1 • 772	0 <1 11 33 224 233 3276 history2 2 2 2 2 0 history2 165
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>15 >20 limit/base >640 >160 >20	0 0 7 29 217 241 3163 <u>current</u> 2 2 2 0 0 <u>current</u> 56 15	0 <1 6 32 222 254 3109 history1 2 2 2 0 history1 2 772 105	0 <1 11 33 224 233 3276 history2 2 2 2 2 0 history2 165 61
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	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >640 >160 >20	0 0 7 29 217 241 3163 <u>current</u> 2 2 2 0 0 <u>current</u> 56 15 2	0 <1 6 32 222 254 3109 history1 2 2 2 0 bistory1 6 772 105 3	0 <1 11 33 224 233 3276 history2 2 2 2 2 0 0 history2 165 61 7
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	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 <b>limit/base</b> >640 >160 >20 >4 >3	0 0 7 29 217 241 3163 <u>current</u> 2 2 2 0 0 <u>current</u> 56 15 2 2 1	0 <1 6 32 222 254 3109 history1 2 2 2 0 bistory1 0 772 105 3 1	0 <1 11 33 224 233 3276 history2 2 2 2 0 history2 165 61 7 2 2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 <b>limit/base</b> >640 >160 >20 >4 >3	0 0 7 29 217 241 3163 <i>current</i> 2 2 2 0 <i>current</i> 56 15 2 2 1 1 0	0 <1 6 32 222 254 3109 history1 2 2 2 0 history1 0 5 772 105 3 1 0 105	0 <1 11 33 224 233 3276 history2 2 2 2 0 history2 165 61 7 2 2 0
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >640 >160 >20 >4 >3 >3	0 0 7 29 217 241 3163 <u>current</u> 2 2 0 <u>current</u> 56 15 2 1 1 0 0 0	0 <1 6 32 222 254 3109 history1 2 2 2 0 history1 0 772 105 3 1 105 3 1 0 0 0	0 <1 11 33 224 233 3276 history2 2 2 2 0 history2 165 61 7 2 2 0 bistory2 165 61 7 2 0 0 0 0 0
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >38µm Particles >38µm Particles >71µm Oil Cleanliness	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647	>15 >20 <b>limit/base</b> >640 >160 >20 >4 >3 >3 >3 >3 >16/14/11	0 0 7 29 217 241 3163 <i>current</i> 2 2 2 0 <i>current</i> 56 15 2 2 1 1 0 0 0 13/11/9	0 <1 6 32 222 254 3109 history1 2 2 2 0 history1 0 772 105 3 105 3 105 3 105 3 105 3 105 3 105 3 105 3 105 3 105 3 105 3 105 3 105 3 105 3 105 3 105 3 105 3 105 3 105 3 105 105 105 105 105 105 105 105 105 105	0 <1 11 33 224 233 3276 history2 2 2 2 0 history2 165 61 7 2 2 0 history2 2 0 0 15/13/10

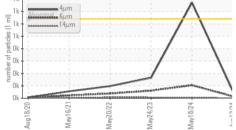


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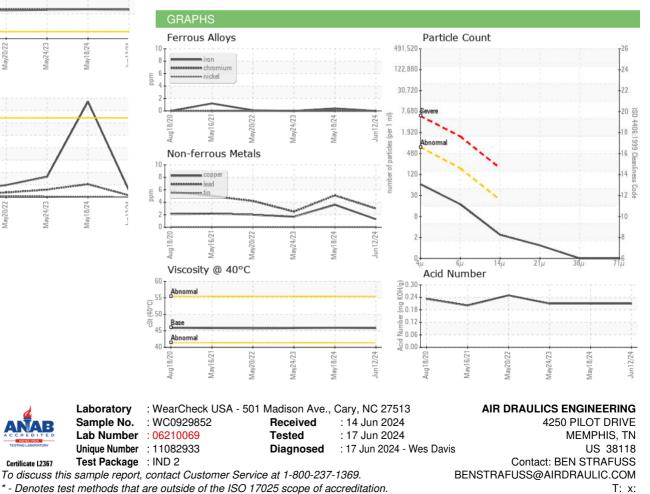








VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.0	45.8	45.9	45.8
SAMPLE IMAGES	3	method	limit/base	current	history1	history2
Color					a.	WC0712553
Bottom						



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

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