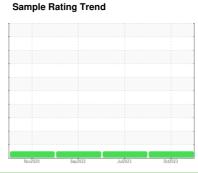


OIL ANALYSIS REPORT

RIPPEY [200005325] 82217 SITE 16

Component **Hydraulic System**

SHELL TELLUS S4 VX 32 (60 LTR)





Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the component. The amount and size of particulates present in the system is 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		NX05999819	NX05913504	NX05672207
Sample Date		Client Info		31 Oct 2023	19 Jul 2023	13 Sep 2022
Machine Age	mths	Client Info		0	0	0
Oil Age	mths	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		12	12	11
Iron	ppm	ASTM D5185m	>20	0	1	2
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	0	<1	0
Lead	ppm	ASTM D5185m	>20	0	2	3
Copper	ppm	ASTM D5185m	>20	0	<1	<1
Tin	ppm	ASTM D5185m	>20	<1	1	2
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	1
Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m		0	0 <1	0 <1
Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 0 0	0 <1 0	0 <1 <1
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 0	0 <1 0	0 <1 <1 0
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 0 0 0 614	0 <1 0 0 580	0 <1 <1 0 570
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 0 0 614 52	0 <1 0 0 580 163	0 <1 <1 <0 570 153
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >15	0 0 0 0 614 52 487	0 <1 0 0 580 163 672	0 <1 <1 <0 570 153 580
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		0 0 0 0 614 52 487	0 <1 0 0 580 163 672 history1	0 <1 <1 0 570 153 580 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m		0 0 0 0 614 52 487 current	0 <1 0 0 580 163 672 history1 2	0 <1 <1 <0 <1 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>15	0 0 0 0 614 52 487 current	0	0 <1 <1 <0 <1 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>15	0 0 0 0 614 52 487 current 1 <1	0 <1 0 0 580 163 672 history1 2 <1 0	0 <1 <1 0 570 153 580 history2 2 0 <1
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>15 >20 >0.05	0 0 0 0 614 52 487 current 1 <1 0	0 <1 0 0 580 163 672 history1 2 <1 0 0.004	0 <1 <1 0 570 153 580 history2 2 0 <1 0.009
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304	>15 >20 >0.05 >500	0 0 0 0 614 52 487 current 1 <1 0 0.011 110.5	0	0 <1 <1 <0 <1 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0 <0
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304	>15 >20 >0.05 >500 limit/base	0 0 0 0 614 52 487 current 1 <1 0 0.011 110.5	0 <1 0 0 580 163 672 history1 2 <1 0 0.004 47.2 history1	0 <1 <1 0 570 153 580 history2 2 0 <1 0.009 94.2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D7647	>15 >20 >0.05 >500 limit/base >20000	0 0 0 0 614 52 487 current 1 <1 0 0.011 110.5 current	0 <1 0 0 580 163 672 history1 2 <1 0 0.004 47.2 history1 5950	0 <1 <1 <1 0 570 153 580 history2 2 0 <1 0.009 94.2 history2 6635
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647	>15 >20 >0.05 >500 limit/base >20000 >2500 >320	0 0 0 0 614 52 487 current 1 <1 0 0.011 110.5 current 8919 1309	0	0 <1 <1 <1 0 570 153 580 history2 2 0 <1 0.009 94.2 history2 6635 1551
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647	>15 >20 >0.05 >500 limit/base >20000 >2500 >320	0 0 0 0 614 52 487 current 1 <1 0 0.011 110.5 current 8919 1309 59	0 <1 0 0 580 163 672 history1 2 <1 0 0.004 47.2 history1 5950 1537 114	0 <1 <1 <1 0 570 153 580 history2 2 0 <1 0.009 94.2 history2 6635 1551 176
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304 ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 >0.05 >500 limit/base >20000 >2500 >320 >80	0 0 0 0 614 52 487 current 1 <1 0 0.011 110.5 current 8919 1309 59 18	0 <1 0 0 580 163 672 history1 2 <1 0 0.004 47.2 history1 5950 1537 114 36	0 <1 <1 <1 0 570 153 580 history2 2 0 <1 0.009 94.2 history2 6635 1551 176 42



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