

OIL ANALYSIS REPORT

BARRIER DEPARTMENT SAMPLES DAVIS STAND WEB 09 D SEAL (S/N J5186) Component

Gearbox Fluic

TEXACO MEROPA 220 (15 GAL)

Recommendation

Resample at the next service interval to monitor.

Wear

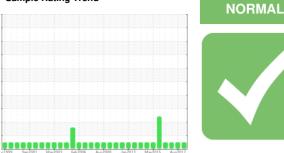
All component wear rates are normal.

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.



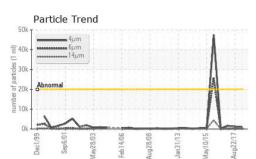


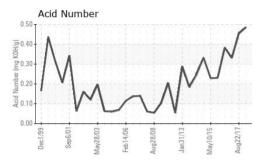
Sample Rating Trend

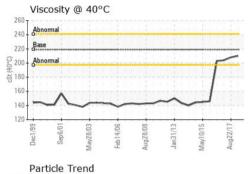
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WCI2319684	WCI2309858	WCI2277279
Sample Date		Client Info		04 Feb 2018	22 Aug 2017	10 May 2017
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	6	8	8
Chromium	ppm	ASTM D5185m	>15	0	0	0
Nickel	ppm	ASTM D5185m	>15	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	0	<1	<1
Lead	ppm	ASTM D5185m	>100	0	<1	0
Copper	ppm	ASTM D5185m	>200	21	20	19
Tin	ppm	ASTM D5185m	>25	<1	0	0
Antimony	ppm	ASTM D5185m		2	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 3.2	current 9	history1 9	history2 10
	ppm ppm				9	10
Boron Barium	ppm	ASTM D5185m	3.2	9	9	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	3.2 0.5	9 0	9	10 0
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5	9 0 4	9 0 5	10 0 6
Boron Barium Molybdenum	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5 1.1	9 0 4 0	9 0 5 <1 <1	10 0 6 <1
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1	9 0 4 0 0	9 0 5 <1	10 0 6 <1 0 8
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	3.2 0.5 1.1 0.1 1.6 159	9 0 4 0 0 6 130	9 0 5 <1 <1 <1 8 119	10 0 6 <1 0 8 130
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159	9 0 4 0 0 6	9 0 5 <1 <1 8	10 0 6 <1 0 8
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	3.2 0.5 1.1 0.1 1.6 159 0.5	9 0 4 0 0 6 130 30	9 0 5 <1 <1 8 119 36	10 0 6 <1 0 8 130 37
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	3.2 0.5 1.1 0.1 1.6 159 0.5 10342	9 0 4 0 0 6 130 30 4841	9 0 5 <1 <1 8 119 36 3218	10 0 6 <1 0 8 130 37 4613
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm 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	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base	9 0 4 0 0 6 130 30 4841 current	9 0 5 <1 <1 8 119 36 3218 history1	10 0 6 <1 0 8 130 37 4613 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50	9 0 4 0 0 6 130 30 4841 current 2	9 0 5 <1 <1 8 119 36 3218 history1 5	10 0 6 <1 0 8 130 37 4613 history2 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50	9 0 4 0 0 6 130 30 4841 <u>current</u> 2 1	9 0 5 <1 <1 8 119 36 3218 history1 5 <1	10 0 6 <1 0 8 130 37 4613 history2 3 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50	9 0 4 0 0 6 130 30 4841 2 2 1 0	9 0 5 <1 <1 8 119 36 3218 history1 5 <1 0	10 0 6 <1 0 8 130 37 4613 history2 3 1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50 >20 limit/base	9 0 4 0 0 6 130 30 4841 <u>current</u> 2 1 0 0	9 0 5 <1 <1 8 119 36 3218 history1 5 <1 0 history1	10 0 6 <1 0 8 130 37 4613 history2 3 1 0 bistory2
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	ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50 >20 limit/base	9 0 4 0 0 6 130 30 4841 <i>current</i> 2 1 0 <i>current</i> 1112	9 0 5 <1 <1 8 119 36 3218 history1 5 <1 0 history1 1231	10 0 6 <1 0 8 130 37 4613 history2 3 1 0 history2 1642
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50 limit/base >20 limit/base >20000 >5000 >5000	9 0 4 0 0 6 130 30 4841 2 2 1 0 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0	9 0 5 <1 <1 8 119 36 3218 history1 5 <1 0 history1 1231 195 23	10 0 6 <1 0 8 130 37 4613 history2 3 1 0 history2 1642 123 17
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	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 limit/base >50 limit/base >20 limit/base >20000 >5000 >5000	9 0 4 0 0 6 130 30 4841 2 2 1 2 1 0 0 <i>current</i> 1112 151	9 0 5 <1 <1 8 119 36 3218 history1 5 <1 0 history1 1231 195	10 0 6 <1 0 8 130 37 4613 history2 3 1 0 history2 1642 123
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 imit/base >50 imit/base >20 000 >5000 >5000 >640 >160 >40	9 0 4 0 0 0 6 130 30 4841 2 2 1 0 2 1 0 0 <i>current</i> 1112 151 25 6	9 0 5 <1 <1 8 119 36 3218 history1 5 <1 0 history1 1231 195 23 10 5 <1 0	10 0 6 <1 0 8 130 37 4613 history2 3 1 1 0 history2 1642 123 17 11
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	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	3.2 0.5 1.1 0.1 1.6 159 0.5 10342 imit/base >50 imit/base >20000 >5000 >5000 >5000 >5000 >5000 >5000	9 0 4 0 0 6 130 30 4841 2 2 1 0 2 1 0 0 2 1 1 0 0 2 1 112 151 25 6 6 2	9 0 5 <1 <1 8 119 36 3218 history1 5 <1 0 history1 1231 195 23 10	10 0 6 <1 0 8 130 37 4613 history2 3 1 1 0 history2 1642 123 17 11 9

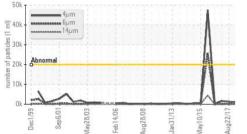


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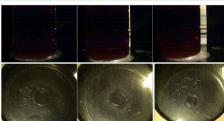


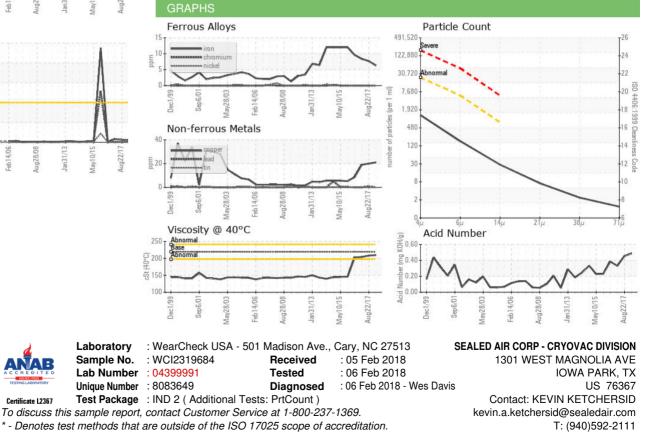


FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.486	0.454	0.331
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	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	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	219	209.9	208.1	203.9
SAMPLE IMAGES		method	limit/base	current	history1	history2



Bottom





Certificate L2367

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

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