

Area

Wear

OIL ANALYSIS REPORT

EMPE P210-22-1058 (S/N 69/1028)

Hydraulic System

DIAGNOSIS

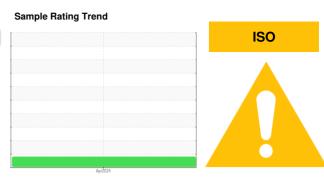
Fluid Condition

TULCO LUBSOIL SUPER HYDRAULIC AW 68 (200 GAL)

SAMPLE INFORMATION method limit/base current history1 history2 TO50002030 Sample Number **Client Info** Recommendation No corrective action is recommended at this time. Sample Date Client Info 12 Apr 2024 Resample at the next service interval to monitor. 19311790 Machine Age hrs Client Info Oil Age hrs Client Info 5157 All component wear rates are normal. Oil Changed Not Changd **Client Info** Sample Status ABNORMAL Contamination There is a high amount of silt (particulates < 6 WEAR METALS method limit/base current history1 history2 microns in size) present in the oil. >30 2 Iron ppm ASTM D5185m Chromium ASTM D5185m >2 ppm <1 The AN level is acceptable for this fluid. The condition of the oil is suitable for further service. Nickel ppm ASTM D5185m >2 <1 Titanium ASTM D5185m <1 ppm Silver ppm ASTM D5185m 0 Aluminum ASTM D5185m >2 2 ppm Lead ASTM D5185m >10 1 ppm ASTM D5185m >25 4 Copper ppm Tin ppm ASTM D5185m >20 <1 Vanadium ASTM D5185m ppm <1 Cadmium ppm ASTM D5185m <1 **ADDITIVES** limit/base current history2 method historv1 0 Boron ppm ASTM D5185m Barium ppm ASTM D5185m 2 Molybdenum <1 ppm ASTM D5185m Manganese ppm ASTM D5185m <1 ASTM D5185m 68 Magnesium ppm 59 Calcium ppm ASTM D5185m Phosphorus ppm ASTM D5185m 425 312 Zinc ASTM D5185m 500 397 ppm Sulfur 1900 ppm ASTM D5185m 2247 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 19 Sodium ppm ASTM D5185m 0 Potassium ASTM D5185m >20 2 ppm 0.001 Water % ASTM D6304 >0.05 13 ppm Water ppm ASTM D6304 >500 FLUID CLEANLINESS history1 limit/base method current history2 29717 Particles >4µm ASTM D7647 >5000 480 Particles >6µm ASTM D7647 >1300 Particles >14µm ASTM D7647 >160 10 Particles >21µm ASTM D7647 >40 2 Particles >38µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 0 >3 **Oil Cleanliness** 22/16/10 ISO 4406 (c) >19/17/14 **FLUID DEGRADATION** method limit/base current history1 history2

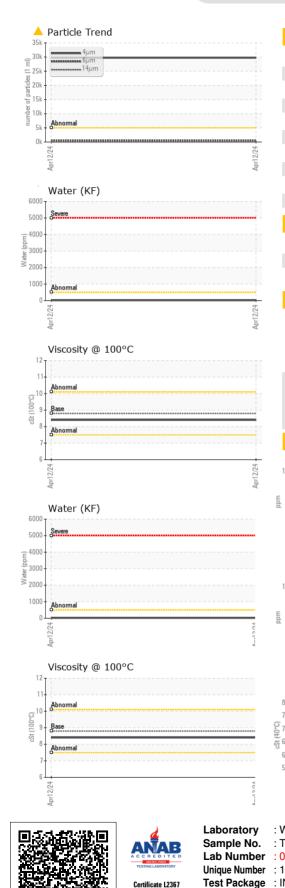
Acid Number (AN) mg KOH/g

ASTM D8045 0.7





OIL ANALYSIS REPORT



	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
Apr12/24	Appearance	scalar	*Visual	NORML	NORML		
Apr	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.05	NEG		
	Free Water	scalar	*Visual		NEG		
	FLUID PROPER	TIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	67.4	65.2		
	Visc @ 100°C	cSt	ASTM D445	8.8	8.4		
	Viscosity Index (VI)	Scale	ASTM D2270	102	97		
	SAMPLE IMAGE	S	method	limit/base	current	history1	history2
	Color					no image	no image
	Bottom					no image	no image
1	GRAPHS						
	Ferrous Alloys				Particle Count		
Apr12/24	10 8			491,52			1 ²
4	E 6			122,88	0-		-2
	ä 4			30,72			-2
				7.68	Abnormal		2
				2/24 -	Hundina		
	Apr12/24			Apr12/24 s (per 1 ml		•	-1
	Non-ferrous Meta	als		Apr12/24- Particles (per 1 ml) 86 '1			
	10 J			5		N	1
	8 copper			and			-1:
5	E 6 4			- 3	•†		-1
26	2 -				8 -		-10
<	24+0			24	2-		-8
	Apr1 2/24			Apr12/24			
	⊲ Viscosity @ 40°C			4	0. 4μ 6μ	14μ 21μ	38µ 71µ
	VISCOSITY @ 40°C				Acid Number		
	75 Abnormal			(PH0.8 PH0.9 Bull ball W W 0.2	Base		
	00 70 - Base 5 65			B 0.0			
				g 0.4	0-		
~				2/24 ·			
6 C P	Apr1 2/24			Apr12/24	Apr12/24		
Laboratory	: WearCheck USA - 50 : TO50002030 : 06153803	01 Madiso Rece Teste	ived : 18	, NC 27513 8 Apr 2024 8 Apr 2024		1401 NORTH	FABRICATIC BOWIE DRIN HERFORD, 1

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

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Contact/Location: LARRY NORRIS - JAMWEA

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