

# **OIL ANALYSIS REPORT**



#### Machine Id **133** Component Hydraulic System Fluid AW HYDRAULIC OIL ISO 46 (--- GAL)

#### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 46. Please confirm. Please specify the component make and model with your next sample.

### 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.

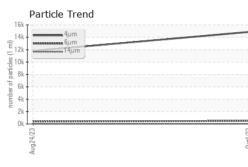
## Fluid Condition

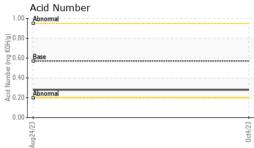
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

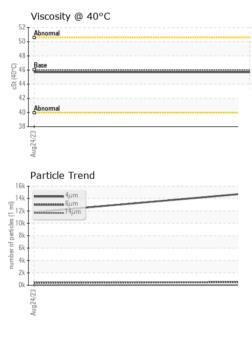
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PTK0004863	PTK0004841	
Sample Date		Client Info		04 Oct 2023	24 Aug 2023	
Machine Age	mths	Client Info		0	0	
Oil Age	mths	Client Info		0	0	
Oil Changed		Client Info		Not Changd	Not Changd	
Sample Status				NORMAL	NORMAL	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	3	3	
Chromium	ppm	ASTM D5185m	>10	0	0	
Nickel	ppm	ASTM D5185m	>10	0	0	
Titanium	ppm	ASTM D5185m		0	<1	
Silver	ppm	ASTM D5185m		0	0	
Aluminum	ppm	ASTM D5185m	>10	0	0	
Lead	ppm	ASTM D5185m	>10	0	0	
Copper	ppm	ASTM D5185m	>75	2	2	
Tin	ppm	ASTM D5185m	>10	0	0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	0	
Barium	ppm	ASTM D5185m	5	0	0	
Molybdenum	ppm	ASTM D5185m	5	0	0	
Manganese	ppm	ASTM D5185m		0	<1	
Magnesium	ppm	ASTM D5185m	25	0	7	
Calcium	ppm	ASTM D5185m	200	52	61	
Phosphorus	ppm	ASTM D5185m	300	311	348	
Zinc	ppm	ASTM D5185m	370	418	447	
Sulfur	ppm	ASTM D5185m	2500	1271	1542	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	<1	2	
Sodium	ppm	ASTM D5185m		0	2	
Potassium	ppm	ASTM D5185m	>20	0	<1	
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		14858	11797	
Particles >6µm		ASTM D7647	>2500	488	397	
Particles >14µm		ASTM D7647	>320	24	8	
Particles >21µm		ASTM D7647	>80	7	1	
Particles >38µm		ASTM D7647	>20	0	0	
Particles >71µm		ASTM D7647	>4	0	0	
Oil Cleanliness		ISO 4406 (c)	>18/15	16/12	16/10	
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.28	0.28	



# **OIL ANALYSIS REPORT**







	VISUAL White Metal		method			history1	history2
	White Metal						
		scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
	Precipitate	scalar	*Visual	NONE	NONE	NONE	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
0001/20	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	
	FLUID PROPER	TIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	46	45.7	45.7	
	SAMPLE IMAGE	S	method	limit/base	current	history1	history2
0001120	Color						no image
	Bottom						no image
	GRAPHS						
	GRAPHS Ferrous Alloys				Particle Coun	ıt	
	Ferrous Alloys			491,520		t	T <sup>2</sup>
_	Ferrous Alloys			491,520		ıt	
	Ferrous Alloys			122,880		t	22
	Ferrous Alloys					t	+2
	Ferrous Alloys			122,880 30,720 7,680		it	-1
	Ferrous Alloys			122,880 30,720 7,680		it	-1
	Ferrous Alloys			122,880 30,720 7,680		it	-1
	Ferrous Alloys	ls		122,880 30,720 7,680		ıt	-1
	Ferrous Alloys	ls		122,880 30,720 7,680		it	+2
	Ferrous Alloys	ls		122,880 30,720 7,680		ıt	-1
	Ferrous Alloys	ls		122,880 30,720 7,680 ( <sup>[[]</sup> 1,920 sopple 480 b		ıt	+2 +2
	Ferrous Alloys	ls		122,880 30,720 7,680 (IIII 1 + 1,920 (IIII + 1,920 30 889 480 10 10 10 30		ıt	
	Ferrous Alloys	ls		122,880 30,720 7,680 (IIII 1 + 1,920 (IIII + 1,920 30 889 480 10 10 10 30		it	
	Ferrous Alloys	ls		122,880 30,720 7,680 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/40000000000		it	      
	Ferrous Alloys	ls		122,880 30,720 7,680 (1 13,1920 1,1920 1,1920 1,1920 480 120 30 30 880 880 880 80 80 80 80 80 80 80 80 80	Rereemal	it	
	Ferrous Alloys	ls		122,880 30,720 7,680 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/4000 20/40000000000	Bbreenal H 6µ	14µ 21µ	+2
	Ferrous Alloys	ls		122,880 30,720 7,680 (In tad) 500 500 trad 1,920 120 30 30 30 480 30 30 480 30 30 480 30 20 480 30 20 480 30 20 480 30 20 480 480 30 20 480 480 480 30 20 480 480 480 30 480 480 480 480 480 480 480 480 480 48	Bbreemal Acid Number	14µ 21µ	
	Ferrous Alloys	ls		122,880 30,720 7,680 (In tad) 500 500 trad 1,920 120 30 30 30 480 30 30 480 30 30 480 30 20 480 30 20 480 30 20 480 30 20 480 480 30 20 480 480 480 30 20 480 480 480 30 480 480 480 480 480 480 480 480 480 48	Bbreemal Acid Number	14µ 21µ	
	Ferrous Alloys	ls		122,880 30,720 7,680 (In tad) 500 500 trad 1,920 120 30 30 30 480 30 30 480 30 30 480 30 20 480 30 20 480 30 20 480 30 20 480 480 30 20 480 480 480 30 20 480 480 480 30 480 480 480 480 480 480 480 480 480 48	Bbreemal Acid Number	14µ 21µ	
	Ferrous Alloys	ls		122,880 30,720 7,680 (In tad) 500 500 trad 1,920 120 30 30 30 480 30 30 480 30 30 480 30 20 480 30 20 480 30 20 480 30 20 480 480 30 20 480 480 480 30 20 480 480 480 30 480 480 480 480 480 480 480 480 480 48	Bbreemal Acid Number	14µ 21µ	
	Ferrous Alloys	ls		122,880 30,720 7,680 (In tad) 500 500 trad 1,920 120 30 30 30 480 30 30 480 30 30 480 30 20 480 30 20 480 30 20 480 30 20 480 480 30 20 480 480 480 30 20 480 480 480 30 480 480 480 480 480 480 480 480 480 48	Bbreemal Acid Number	14µ 21µ	
	Ferrous Alloys	ls		122,880 30,720 7,680 (1 13,1920 1,920 1,1920 1,1920 480 120 30 30 880 120 30 880 88 88 88 80 80 80 80 80 80 80 80 8	Bbreemal Acid Number	14µ 21µ	

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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

Certificate L2367

Contact/Location: BUTCH BLISS - EXOKENWA

F:

T: (253)395-3710