

### **OIL ANALYSIS REPORT**

Sample Rating Trend

#### Machine Id

# 5000-4 (S/N A0060A0345)

Hydraulic System

### SAFETY-KLEEN PERFORMANCE PLUS HYDRAULIC AW 46 (66 GAL)

#### DIAGNOSIS

#### A Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

#### Wear

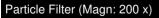
All component wear rates are normal.

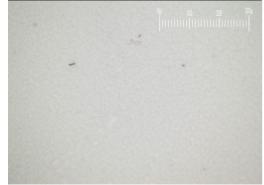
#### Contamination

There is a high amount of particulates present in the oil.

#### Fluid Condition

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





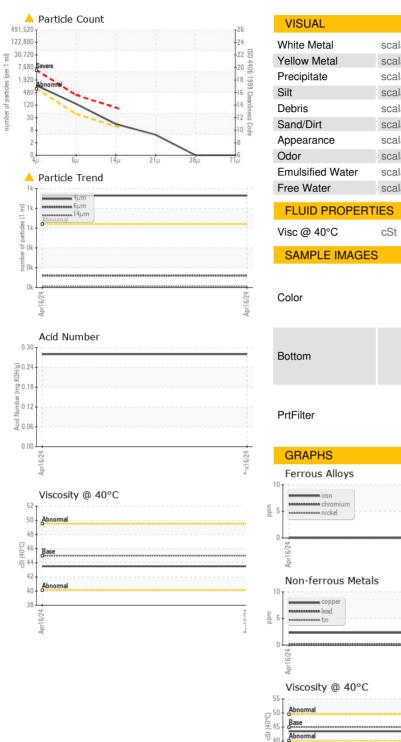
ISO

	<b>IATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		PH0002667		
Sample Date		Client Info		16 Apr 2024		
Machine Age	yrs	Client Info		0		
Oil Age	yrs	Client Info		0		
Oil Changed		Client Info		Not Changd		
Sample Status				ABNORMAL		
CONTAMINATION	N	method	limit/base	current	history1	history2
Water	•	WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	0		
Chromium	ppm	ASTM D5185m	>20	0		
Nickel	ppm	ASTM D5185m	>20	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>20	0		
Lead	ppm	ASTM D5185m	>20	0		
Copper	ppm	ASTM D5185m	>20	2		
Tin	ppm	ASTM D5185m	>20	<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		<1		
	1010					
Calcium	ppm	ASTM D5185m	48	49		
Calcium Phosphorus			48 340			
	ppm	ASTM D5185m		49		
Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m	340	49 350		
Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	340	49 350 445		
Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	340 430 limit/base	49 350 445 1067		 
Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	340 430 limit/base	49 350 445 1067 current		 
Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	340 430 limit/base >15	49 350 445 1067 current 0	  history1	 
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	340 430 limit/base >15	49 350 445 1067 <u>current</u> 0 2	  history1 	  history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	340 430 limit/base >15 >20	49 350 445 1067 current 0 2 1	  history1  	   history2  
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	340 430 limit/base >15 >20 limit/base	49 350 445 1067 current 0 2 1 1 current	  history1   history1	  history2    history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	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	340 430 limit/base >15 >20 limit/base >640	49 350 445 1067 current 0 2 1 2 1 2 1 2 1 2 3	  history1   history1 	  history2   history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D7647 ASTM D7647	340 430 >15 >20 limit/base >640 >40	49 350 445 1067 0 2 1 2 1 2 1 928 ▲ 928	  history1   history1  history1	  history2   history2
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 D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	340 430 >15 >20 limit/base >20 limit/base >640 >40 >10	49 350 445 1067 0 2 1 2 1 1 <u>current</u> 928 ▲ 928 121 ▲ 13	  history1   history1  	   history2   history2  
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 D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	340 430 >15 >20 limit/base >20 limit/base >640 >40 >10 >3	49 350 445 1067 0 2 1 2 1 1 <u>current</u> ▲ 928 ▲ 121 ▲ 13 ▲ 4	  history1   history1     	history2 history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4μm Particles >14μm Particles >21μm Particles >38μm	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	340 430 limit/base >15 >20 limit/base >640 >40 >40 >10 >3 >3 >3	49 350 445 1067 current 0 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	 history1 history1 history1	history2 history2 history2 history2
Phosphorus Zinc Sulfur Sulfur CONTAMINANTS Silicon Sodium Potassium Potassium FLUID CLEANLIN Particles >4μm Particles >6μm Particles >14μm Particles >38μm Particles >71μm	ppm ppm ppm ppm ppm ppm Ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	340 430 515 >20 1imit/base >20 1imit/base >640 >40 >10 >3 >3 >3 >3	49 350 445 1067 0 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	  history1   history1      	history2 history2

Report Id: BSHJACTN [WUSCAR] 06153067 (Generated: 04/23/2024 16:13:15) Rev: 1

Contact/Location: STEVE WILSON - BSHJACTN

# **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		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.05	NEG		
Free Water	scalar	*Visual	, 0100	NEG		
FLUID PROPER		method	limit/base	current	history1	history2
					TIISLOTYT	
Visc @ 40°C	cSt	ASTM D445		43.5		
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
Color					no image	no image
					mage	mage
				1/Can		
Bottom					no image	no image
PrtFilter					no image	no image
GRAPHS						
Ferrous Alloys						
iron			Pa	article Filter (M	agn: 200 x)	
- nickel						
24 54			24			
Apr1 6/24			Apr16/24			
			4	-		
Non-ferrous Meta	15					
copper						
			_			
52			54			
Apr16/24			Apr16/24			
Viscosity @ 40°C			(B)	Acid Number		
			- 9 U.3			
Abnormal Base Abnormal			<u>ட</u> 0.2 ங	20 +		
Abnormal			0.0 (0) 0.0 (0) 0.0 (0) 0.0 (0) 0.0 (0) 0.0 (0) 0.0 (0)	0		
; L <u>i</u>				10 Li		
Apr16/24			Apr16/24	Apr16/24		And 6/24
Ar			Ap	Ap		4
/earCheck USA - 50						APPLIANCES
H0002667	Rece		3 Apr 2024			MEMORIAL DF
6153067	Teste		3 Apr 2024		JA	CKSBORO, TN
)983145	Diagr	10sed : 23	Apr 2024 - Jona	than Hester		US 37757



Lab Number : 061530 Unique Number : 10983145 Diagnos Test Package : PLANT ( Additional Tests: PrtFilter ) Contact: STEVE WILSON Certificate 12367 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)

Laboratory

Sample No.

steve.wilson@bshg.com T: (423)563-6119 F:

Contact/Location: STEVE WILSON - BSHJACTN