

OIL ANALYSIS REPORT

Sample Rating Trend

Area **POUCH** [99128688 BEFORE] L35 WEST DUMPER

Hydraulic System

AW HYDRAULIC OIL ISO 46 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

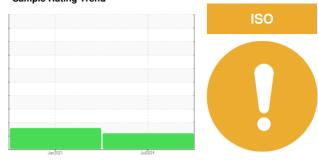
All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

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



Water WC Method >0.05 NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 0 <1 Chromium ppm ASTM D5185m >20 0 0 Nickel ppm ASTM D5185m >20 0 0 Titanium ppm ASTM D5185m <1 <1 Aluminum ppm ASTM D5185m >20 0 0 Aluminum ppm ASTM D5185m >20 1 <1 Aluminum ppm ASTM D5185m >20 1 <1 Adadium ppm ASTM D5185m >20 1 <1 Adaminum ppm ASTM D5185m <1 0 Adaminum ppm ASTM D5185m 5 0	SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 0 Oil Age hrs Client Info Not Changd N/A Sample Status Image ATTENTION ABNORMAL CONTAMINATION method Imit/base current history1 history2 Water WC Method >0.05 NEG NEG Wear WC Method >0.05 NEG NEG Othoronium ppm ASTM D5165m >20 0 <1 Nickel ppm ASTM D5165m >20 0 0 Nickel ppm ASTM D5165m >20 0 0 Aluminum ppm ASTM D5165m >20 4 <1 Lead ppm ASTM D5165m >20 1 Attorninum ppm ASTM D5165m >20 1 0 Attorninum	Sample Number		Client Info		PCA0127818	PCA0036626	
Oil Age hrs Client Info 0 0 Oil Changed Client Info Not Changd N/A Sample Status Imit/base current history1 history1 Water WC Method >0.05 NEG NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >20 o Nickel ppm ASTM D5185m >20 o 0 Silver ppm ASTM D5185m >20 4 -1 Aluminum ppm ASTM D5185m >20 1 Aluminum ppm ASTM D5185m >20 1 Aluminum ppm ASTM D5185m >20 1 Aluminum ppm ASTM D5185m >20 1 <td< th=""><th>Sample Date</th><th></th><th>Client Info</th><th></th><th>02 Jul 2024</th><th>15 Jan 2021</th><th></th></td<>	Sample Date		Client Info		02 Jul 2024	15 Jan 2021	
Oil Changed Sample Status Client Info Not Changd ATTENTION N/A CONTAMINATION method limit/base current history1 history1 Water WC Method >0.05 NEG NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >20 0 <1 Nickel ppm ASTM D5185m >20 0 0 Aluminum ppm ASTM D5185m >20 1 <1 Antimony ppm ASTM D5185m >20 1 <1 Antimony ppm ASTM D5185m >20 <1 0 Antimony ppm ASTM D5185m >0 <1 0 Antimony	Machine Age	hrs	Client Info		0	0	
Sample Status ATTENTION ABNORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >0.05 NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 0 <1 0 Nickel ppm ASTM D5185m >20 0 0 0 Aluminum ppm ASTM D5185m >20 0 0 0	Oil Age	hrs	Client Info		0	0	
CONTAMINATION method limit/base current history1 history2 Water WC Method >0.05 NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 0 <1 Nickel ppm ASTM D5185m >20 0 0 Nickel ppm ASTM D5185m >20 0 0 Aluminum ppm ASTM D5185m >20 4 <1 Aluminum ppm ASTM D5185m >20 0 0 Aluminum ppm ASTM D5185m >20 1 <1 Aluminum ppm ASTM D5185m >20 1 <1 0 Aluminum ppm ASTM D5185m >20 <1 0 Antimony ppm ASTM D5185m <1	Oil Changed		Client Info		Not Changd	N/A	
Water WC Method >0.05 NEG NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >20 0 <1 Chromium ppm ASTM D5185m >20 0 0 Nickel ppm ASTM D5185m >20 0 0 Titanium ppm ASTM D5185m >20 4 <1 Aluminum ppm ASTM D5185m >20 0 0 Copper ppm ASTM D5185m >20 1 <1 Antimony ppm ASTM D5185m >20 1 <1< Antimony ppm ASTM D5185m >20 <1 0 Antimony ppm ASTM D5185m <0 <1 0 Antimony ppm ASTM D5185m 5 0	Sample Status				ATTENTION	ABNORMAL	
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 0 <1 Chromium ppm ASTM D5185m >20 0 0 Nickel ppm ASTM D5185m >20 0 0 Silver ppm ASTM D5185m >20 4 <1 Aluminum ppm ASTM D5185m >20 4 <1 Aluminum ppm ASTM D5185m >20 1 <1 Aluminum ppm ASTM D5185m >20 1 <1 Attimony ppm ASTM D5185m >20 1 0 Attimony ppm ASTM D5185m >20 1 0 Attimony ppm ASTM D5185m >1 0 Attimony ppm ASTM D5185m 5 0 </th <th>CONTAMINA</th> <th>ΓΙΟΝ</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	CONTAMINA	ΓΙΟΝ	method	limit/base	current	history1	history2
Iron ppm ASTM D5185m >20 0 <1	Water		WC Method	>0.05	NEG	NEG	
Chromium ppm ASTM D5185m >20 <1	WEAR METAI	LS	method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >20 0 0 Titanium ppm ASTM D5185m <1	Iron	ppm	ASTM D5185m	>20	0	<1	
Titanium ppm ASTM D5185m <1 0 Silver ppm ASTM D5185m <1	Chromium	ppm	ASTM D5185m	>20	<1	0	
Silver ppm ASTM D5185m <1 <1 <1 <1 <1 Aluminum ppm ASTM D5185m >20 4 <1	Nickel	ppm	ASTM D5185m	>20	0	0	
Aluminum ppm ASTM D5185m >20 4 <1 Lead ppm ASTM D5185m >20 0 0 Copper ppm ASTM D5185m >20 1 <1	Titanium	ppm	ASTM D5185m		<1	0	
Lead ppm ASTM D5185m >20 0 0 Copper ppm ASTM D5185m >20 1 <1	Silver	ppm	ASTM D5185m		<1	<1	
Copper ppm ASTM D5185m >20 1 <1 Tin ppm ASTM D5185m >20 <1	Aluminum	ppm	ASTM D5185m	>20	4	<1	
Tin ppm ASTM D5185m >20 <1 0 Antimony ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m <1	Lead	ppm	ASTM D5185m	>20	0	0	
Antimony ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m <1	Copper	ppm	ASTM D5185m	>20	1	<1	
Vanadium ppm ASTM D5185m <1 0 Cadmium ppm ASTM D5185m <1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5 0 <1 Barium ppm ASTM D5185m 5 0 0 Molybdenum ppm ASTM D5185m 5 0 0 Manganese ppm ASTM D5185m 5 <1 0 Magnesium ppm ASTM D5185m 200 0 0 Calcium ppm ASTM D5185m 200 0 0 Magnesium ppm ASTM D5185m 200 0 0 Calcium ppm ASTM D5185m 200 631 200 Sulfur ppm ASTM D5185m 2500 631 208	Tin	ppm	ASTM D5185m	>20	<1	0	
Cadmium ppm ASTM D5185m <1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5 0 <1 Barium ppm ASTM D5185m 5 0 <1 Manganese ppm ASTM D5185m 5 <1 0 Manganese ppm ASTM D5185m 5 <1 0 Magnesium ppm ASTM D5185m 25 <1 0 Calcium ppm ASTM D5185m 20 0 0 Magnesium ppm ASTM D5185m 200 0 0 Calcium ppm ASTM D5185m 370 6 1 Sulfur ppm ASTM D5185m 2500 6311 208 Silicon ppm ASTM D5185m >15 1	Antimony	ppm	ASTM D5185m			0	
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 5 0 <1	Vanadium	ppm	ASTM D5185m		<1	0	
Boron ppm ASTM D5185m 5 0 <1	Cadmium	ppm	ASTM D5185m		<1	0	
Barium ppm ASTM D5185m 5 0 0 Molybdenum ppm ASTM D5185m 5 <1 0 Manganese ppm ASTM D5185m 5 <1 0 Magnesium ppm ASTM D5185m 25 <1 0 Calcium ppm ASTM D5185m 200 0 0 Phosphorus ppm ASTM D5185m 200 0 0 Zinc ppm ASTM D5185m 370 6 1 Sulfur ppm ASTM D5185m 2500 631 208 Solicon ppm ASTM D5185m >15 1 2 Sodium ppm ASTM D5185m >20 <1 0 Potassium ppm ASTM D5185m >20 <1 0 FLUID CLEANLINESS method limit/base c	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 5 <1 0 Manganese ppm ASTM D5185m C 0 0 0	Boron	ppm	ASTM D5185m	5	0	<1	
Marganese ppm ASTM D5185m 0 0 Magnesium ppm ASTM D5185m 25 <1	Barium	ppm	ASTM D5185m	5	0	0	
Magnesium ppm ASTM D5185m 25 <1	Molybdenum	ppm	ASTM D5185m	5	<1	0	
Calcium ppm ASTM D5185m 200 0 0 Phosphorus ppm ASTM D5185m 300 301 200 Zinc ppm ASTM D5185m 370 6 1 Sulfur ppm ASTM D5185m 2500 631 208 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 1 2 Sodium ppm ASTM D5185m >20 <1	Manganese	ppm	ASTM D5185m		0	0	
Phosphorus ppm ASTM D5185m 300 301 200 Zinc ppm ASTM D5185m 370 6 1 5 Sulfur ppm ASTM D5185m 2500 631 208 6 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 1 2 6 Sodium ppm ASTM D5185m >15 1 2 7 Potassium ppm ASTM D5185m >20 <1	Magnesium	ppm	ASTM D5185m	25	<1	0	
Zinc ppm ASTM D5185m 370 6 1 Sulfur ppm ASTM D5185m 2500 631 208 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 1 2 Sodium ppm ASTM D5185m >15 1 2 Potassium ppm ASTM D5185m >15 0 <1	Calcium	ppm	ASTM D5185m	200	0	0	
Sulfur ppm ASTM D5185m 2500 631 208 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 1 2 Sodium ppm ASTM D5185m >15 1 2 Potassium ppm ASTM D5185m >20 <1 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >1300 1535 5000 Particles >6µm ASTM D7647 >320 342 1296 Particles >14µm ASTM D7647 >80 35 192	Phosphorus	ppm	ASTM D5185m	300	301	200	
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 1 2 Sodium ppm ASTM D5185m >15 1 2 Sodium ppm ASTM D5185m >20 <1	Zinc	ppm	ASTM D5185m	370	6	1	
Silicon ppm ASTM D5185m >15 1 2 Sodium ppm ASTM D5185m 0 <1	Sulfur	ppm	ASTM D5185m	2500	631	208	
Sodium ppm ASTM D5185m 0 <1	CONTAMINA	NTS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1 0 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >1300 1535 5000 Particles >6µm ASTM D7647 >320 342 1296 Particles >14µm ASTM D7647 >80 35 192	Silicon	ppm	ASTM D5185m	>15	1	2	
FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >1300 1535 5000 Particles >6µm ASTM D7647 >320 342 1296 Particles >14µm ASTM D7647 >80 35 192	Sodium	ppm	ASTM D5185m		0	<1	
Particles >4μm ASTM D7647 >1300 1535 5000 Particles >6μm ASTM D7647 >320 342 1296 Particles >14μm ASTM D7647 >80 35 192	Potassium	ppm	ASTM D5185m	>20	<1	0	
Particles >6μm ASTM D7647 >320 342 1296 Particles >14μm ASTM D7647 >80 35 192	FLUID CLEAN	ILINESS	method	limit/base	current	history1	history2
Particles >6μm ASTM D7647 >320 342 1296 Particles >14μm ASTM D7647 >80 35 192	Particles >4µm		ASTM D7647	>1300	e 1535	▲ 5000	
Particles >14μm ASTM D7647 >80 35 ▲ 192					-		
	Particles >14µm				-		
			ASTM D7647	>20	8	<u> </u>	

ASTM D7647 >4

ASTM D7647 >3

0

0

ISO 4406 (c) >17/15/13 **18/16/12**

Particles >38µm

Particles >71µm

Oil Cleanliness

2

0

▲ 19/17/15



OIL ANALYSIS REPORT

mg KOH/g ASTM D8045

scalar

scalar

scalar

scalar

*Visual

*Visual

*Visual

*Visual

0.57

NONE

NONE

NONE

NONE

0.29

NONE

NONE

NONE

NONE

0.340

NONE

NONE

NONE

NONE







0.00

54

52

50 () 48 0+ 46

> 42 Abno

40 38

Ba -73 44

Jan 15/2

Viscosity @ 40°C

Test Package : IND 2 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)

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Laboratory

Sample No.

Contact: Service Manager

T: F: