

# **OIL ANALYSIS REPORT**

Sample Rating Trend





Area

# **INJECT B ROOM [99079020]**

KR-GR-003106 - DUMPER 3B - SOUTH (S/N INJECT B - 11513037)

Hydraulic System

**AW HYDRAULIC OIL ISO 68 (--- GAL)** 

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. ( Customer Sample Comment: 99079020 )

#### Wear

All component wear rates are normal.

## Contamination

There is a moderate amount of silt (particulates < 6 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.

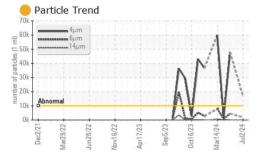
Client Info		n2021 MarZ022 Jun2022 New2022 AprZ023 Sep2023 Ocz023 MarZ024 JuZ0.							
Sample Date   Client Info   O2 Jul 2024   24 May 2024   24 May 2024   24 May 2024   0	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2		
Machine Age hrs Client Info 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Sample Number		Client Info		PCA0124760	PCA0055970	PCA0122294		
Dil Changed	Sample Date		Client Info		02 Jul 2024	24 May 2024	24 May 2024		
Cilient Info	Machine Age	hrs	Client Info		0	0	0		
ATTENTION	Oil Age	hrs	Client Info		0	0	0		
CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.05         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM DS185m         >20         0         <1         <1           Nickel         ppm         ASTM DS185m         >20         0         <1         <1           Nickel         ppm         ASTM DS185m         >20         0         <1         <1           Silver         ppm         ASTM DS185m         0         0         <1         <1           Aluminum         ppm         ASTM DS185m         >20         0         <1         <1           Lead         ppm         ASTM DS185m         >20         0         <1         <1           Capper         ppm         ASTM DS185m         >20         0         <1         <1           Vanadium         ppm         ASTM DS185m         0         0         0         <1           Caddmium         ppm         ASTM DS185m         5         0         0 <t< th=""><th>Oil Changed</th><th></th><th>Client Info</th><th></th><th>Not Changd</th><th>N/A</th><th>N/A</th></t<>	Oil Changed		Client Info		Not Changd	N/A	N/A		
Water         WC Method         >0.05         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         0         2         2           Chromium         ppm         ASTM D5185m         >20         0         <1	Sample Status				ATTENTION	ABNORMAL	ABNORMAL		
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         0         2         2           Chromium         ppm         ASTM D5185m         >20         0         <1         <1           Nickel         ppm         ASTM D5185m         >20         0         <1         <1           Silver         ppm         ASTM D5185m         0         0         0         0           Aluminum         ppm         ASTM D5185m         >20         0         2         2           _ead         ppm         ASTM D5185m         >20         0         <1         <1           Quandium         ppm         ASTM D5185m         >20         0         <1         <1           Vanadium         ppm         ASTM D5185m         >20         0         <1         <1           Cadedium         ppm         ASTM D5185m         0         0         0         <1           Boron         ppm         ASTM D5185m         0         0         0         <1           Barium         ppm         ASTM D5185m         5         0         <1	CONTAMINATI	ON	method	limit/base	current	history1	history2		
Chromium	Water		WC Method	>0.05	NEG	NEG	NEG		
Chromium	WEAR METALS	S	method	limit/base	current	history1	history2		
Chromium         ppm         ASTM D5185m         >20         0         <1	Iron	ppm	ASTM D5185m	>20	0	2	2		
Nickel   ppm   ASTM D5185m   >20   0   <1   <1   <1   <1   <1   <1   <1	Chromium		ASTM D5185m	>20	0	<1	<1		
Silver	Nickel		ASTM D5185m	>20	0	<1	<1		
Aluminum   ppm   ASTM D5185m   >20   0   2   2   2   2   2   2   2   2	Titanium	• • • • • • • • • • • • • • • • • • • •	ASTM D5185m		0	<1	<1		
Aluminum	Silver		ASTM D5185m		0	0	0		
Lead         ppm         ASTM D5185m         >20         0         <1	Aluminum		ASTM D5185m	>20	0	2	2		
Tin	Lead	ppm	ASTM D5185m	>20	0	<1	<1		
Trin	Copper	ppm	ASTM D5185m	>20	0	1	1		
Cadmium         ppm         ASTM D5185m         0         0         <1	Tin	ppm	ASTM D5185m	>20	0	<1	<1		
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         5         0         0         0           Barium         ppm         ASTM D5185m         5         0         <1         <1           Molybdenum         ppm         ASTM D5185m         5         0         <1         <1           Manganese         ppm         ASTM D5185m         25         0         1         1           Manganesium         ppm         ASTM D5185m         200         1         9         10           Phosphorus         ppm         ASTM D5185m         200         1         9         10           Phosphorus         ppm         ASTM D5185m         370         18         59         57           Sulfur         ppm         ASTM D5185m         2500         712         883         785           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         2         2         2         2           Potassium         ppm         ASTM D5185m         >20<	Vanadium	ppm	ASTM D5185m		0	0	0		
Boron         ppm         ASTM D5185m         5         0         0         0           Barium         ppm         ASTM D5185m         5         0         <1	Cadmium	ppm	ASTM D5185m		0	0	<1		
Barium ppm ASTM D5185m 5 0 <1 <1 <1	ADDITIVES		method	limit/base	current	history1	history2		
Sarium	Boron	ppm	ASTM D5185m	5	0	0	0		
Manganese         ppm         ASTM D5185m         <1	Barium		ASTM D5185m	5	0	<1	<1		
Manganese         ppm         ASTM D5185m         <1	Molybdenum	ppm	ASTM D5185m	5	0	<1	<1		
Calcium         ppm         ASTM D5185m         200         1         9         10           Phosphorus         ppm         ASTM D5185m         300         457         455         411           Zinc         ppm         ASTM D5185m         370         18         59         57           Sulfur         ppm         ASTM D5185m         2500         712         883         785           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         2         2         2           Sodium         ppm         ASTM D5185m         >20         <1         <1         <1           Potassium         ppm         ASTM D5185m         >20         <1         <1         <1           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >10000         17093         47774            Particles >14µm         ASTM D7647         >640         38         165            Particles >21µm         ASTM D7647         >40 </th <th>Manganese</th> <th>ppm</th> <th></th> <th></th> <th>&lt;1</th> <th>0</th> <th>0</th>	Manganese	ppm			<1	0	0		
Calcium         ppm         ASTM D5185m         200         1         9         10           Phosphorus         ppm         ASTM D5185m         300         457         455         411           Zinc         ppm         ASTM D5185m         370         18         59         57           Sulfur         ppm         ASTM D5185m         2500         712         883         785           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         2         2         3           Sodium         ppm         ASTM D5185m         >20         <1         <1         <1           Potassium         ppm         ASTM D5185m         >20         <1         <1         <1           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >10000         17093         Δ 47774            Particles >14μm         ASTM D7647         >640         38         165            Particles >21μm         ASTM D7647         >40         4	Magnesium	ppm	ASTM D5185m	25	0	1	1		
Zinc   ppm   ASTM D5185m   370   18   59   57	Calcium	ppm	ASTM D5185m	200	1	9	10		
Sulfur         ppm         ASTM D5185m         2500         712         883         785           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         2         2         2         2           Sodium         ppm         ASTM D5185m         2         2         2         2           Potassium         ppm         ASTM D5185m         >20         <1         <1         <1           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >10000         17093         Δ 47774            Particles >6μm         ASTM D7647         >2500         1953         4406            Particles >14μm         ASTM D7647         >640         38         165            Particles >21μm         ASTM D7647         >40             Particles >38μm         ASTM D7647         >40             Particles >71μm         ASTM D7647         >10         0            Dil Cleanliness	Phosphorus	ppm	ASTM D5185m	300	457	455	411		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         2         2         2           Potassium         ppm         ASTM D5185m         >20         <1         <1         <1           FLUID CLEANLINESS method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >10000         17093         ▲ 47774            Particles >6μm         ASTM D7647         >2500         1953         4406            Particles >14μm         ASTM D7647         >640         38         165            Particles >21μm         ASTM D7647         >160         7         40            Particles >38μm         ASTM D7647         >40         0         4            Particles >71μm         ASTM D7647         >10         0         0            Dil Cleanliness         ISO 4406 (c)         >20/18/16         21/18/12         ≥ 23/19/15	Zinc	ppm	ASTM D5185m	370	18	59	57		
Silicon         ppm         ASTM D5185m         >15         2         3	Sulfur	ppm	ASTM D5185m	2500	712	883	785		
Sodium   ppm   ASTM D5185m   2   2   2   2   2   Potassium   ppm   ASTM D5185m   >20   <1   <1   <1   <1   <1   <1   <1   <	CONTAMINAN	TS	method	limit/base	current	history1	history2		
Sodium   ppm   ASTM D5185m   2   2   2   2   2   Potassium   ppm   ASTM D5185m   >20   <1   <1   <1   <1   <1   <1   <1   <	Silicon	ppm	ASTM D5185m	>15	2	2	3		
Potassium         ppm         ASTM D5185m         >20         <1	Sodium								
Particles >4μm       ASTM D7647       >10000       17093       47774          Particles >6μm       ASTM D7647       >2500       1953       4406          Particles >14μm       ASTM D7647       >640       38       165          Particles >21μm       ASTM D7647       >160       7       40          Particles >38μm       ASTM D7647       >40       0       4          Particles >71μm       ASTM D7647       >10       0       0          Dil Cleanliness       ISO 4406 (c)       >20/18/16       21/18/12       23/19/15	Potassium		ASTM D5185m	>20	<1	<1	<1		
Particles >6μm       ASTM D7647       >2500       1953       4406          Particles >14μm       ASTM D7647       >640       38       165          Particles >21μm       ASTM D7647       >160       7       40          Particles >38μm       ASTM D7647       >40       0       4          Particles >71μm       ASTM D7647       >10       0       0          Oil Cleanliness       ISO 4406 (c)       >20/18/16       21/18/12       Δ       23/19/15	FLUID CLEANL	.INESS	method	limit/base	current	history1	history2		
Particles >14μm       ASTM D7647       >640       38       165          Particles >21μm       ASTM D7647       >160       7       40          Particles >38μm       ASTM D7647       >40       0       4          Particles >71μm       ASTM D7647       >10       0       0          Oil Cleanliness       ISO 4406 (c)       >20/18/16       21/18/12       23/19/15	Particles >4μm		ASTM D7647	>10000	<b>17093</b>	<b>△</b> 47774			
Particles >21μm       ASTM D7647       >160       7       40          Particles >38μm       ASTM D7647       >40       0       4          Particles >71μm       ASTM D7647       >10       0       0          Oil Cleanliness       ISO 4406 (c)       >20/18/16       21/18/12       Δ 23/19/15	Particles >6µm		ASTM D7647	>2500	1953	4406			
Particles >38μm       ASTM D7647       >40       0       4          Particles >71μm       ASTM D7647       >10       0       0          Oil Cleanliness       ISO 4406 (c)       >20/18/16       21/18/12       23/19/15	Particles >14μm		ASTM D7647	>640	38	165			
Particles >71μm       ASTM D7647       >10       0       0          Oil Cleanliness       ISO 4406 (c)       >20/18/16       21/18/12       Δ 23/19/15	Particles >21µm		ASTM D7647	>160	7	40			
Oil Cleanliness ISO 4406 (c) >20/18/16 ● 21/18/12 ▲ 23/19/15	Particles >38µm		ASTM D7647	>40	0	4			
	Particles >71µm		ASTM D7647	>10	0	0			
FLUID DEGRADATION method limit/base current history1 history2	Oil Cleanliness		ISO 4406 (c)	>20/18/16	<b>2</b> 1/18/12	<b>2</b> 3/19/15			
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2		

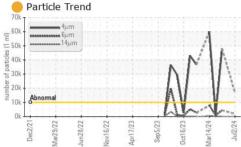
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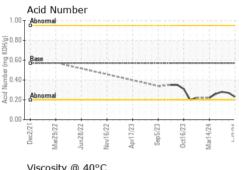


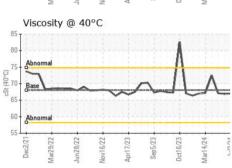
# **OIL ANALYSIS REPORT**

SAMPLE IMAGES



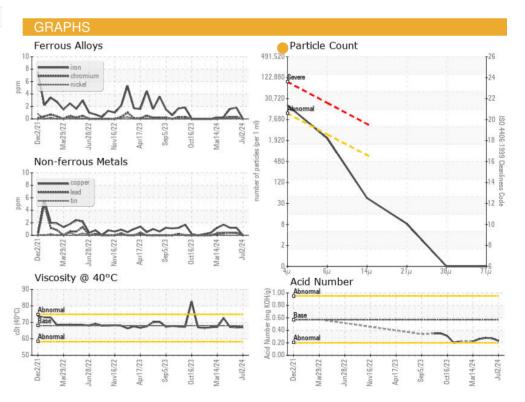






VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	▲ MODER
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	MILKY
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.05	NEG	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68	67.0	66.9	67.1

Color **Bottom** 







Laboratory Sample No.

: PCA0124760 Lab Number : 06228508 Unique Number : 11112001

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 05 Jul 2024

**Tested** : 08 Jul 2024 Diagnosed : 08 Jul 2024 - Jonathan Hester

KraftHeinz - Kirksville - Plant 8333 PCA

2504 INDUSTRIAL DR KIRKSVILLE, MO US 63501

Contact: WALLACE WARD

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.

wallace.ward@kraftheinzcompany.com T: (660)627-1031

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

F: (660)627-5887 Submitted By: DAVID ROBINSON