

PRESS #5 PP4

DIAGNOSTICS

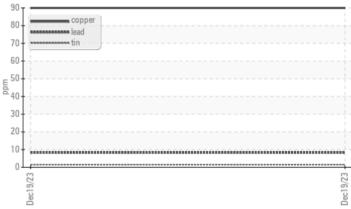
Component Hydraulic System



COMPONENT CONDITION SUMMARY



🔺 Non-ferrous Metals



RECOMMENDATION

We advise that you check for visible metal particles in the oil. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. Resample in 30-45 days to monitor this situation. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using Advanced Oil Monitoring (AOM) kits for this system. The AOM test package includes advanced level testing to determine the suitability of turbine and large industrial compressor oils for continued use.

PROBLEMATIC TEST RESULTS

			<u> </u>		
Sample Status				SEVERE	
Particles >4µm		ASTM D7647	>5000	e 104485	
Particles >6µm		ASTM D7647	>1300	e 26712	
Particles >14µm		ASTM D7647	>160	<u> </u>	
Oil Cleanliness		ISO 4406 (c)	>19/17/14	e 24/22/16	
White Metal	scalar	Visual*	NONE	🔺 VLITE	
				A los to the state	

PrtFilter

Customer Id: EXTWOO Sample No.: PC0076130 Lab Number: 02604640 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Kevin Marson +1 (289)291-4644 x4644 Kevin.Marson@wearcheck.com

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com



no image

no image

RECOMMENDED ACTIONS						
Action	Status	Date	Done By	Description		
Change Filter			?	We recommend you service the filters on this component.		
Resample			?	Resample in 30-45 days to monitor this situation.		
Contact Required			?	Please contact your representative for information regarding the proper sampling kits for your service.		
Alert			?	NOTE: We recommend using Advanced Oil Monitoring (AOM) kits for this system. The AOM test package includes advanced level testing to determine the suitability of turbine and large industrial compressor oils for continued use.		
Check Breathers			?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.		
Check Fluid Source			?	Confirm the source of the lubricant being utilized for top-up/fill.		
Check For Visual Metal			?	We advise that you check for visible metal particles in the oil.		
Check Seals			?	Check seals and/or filters for points of contaminant entry.		

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT



PRESS #5 PP4

Component Hydraulic System Fluid PETRO CANADA HYDREX AW 68 (3000 GAL)

DIAGNOSIS

Recommendation

We advise that you check for visible metal particles in the oil. Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. Resample in 30-45 days to monitor this situation. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using Advanced Oil Monitoring (AOM) kits for this system. The AOM test package includes advanced level testing to determine the suitability of turbine and large industrial compressor oils for continued use.

🔺 Wear

Copper ppm levels are noted. Light concentration of visible metal present.

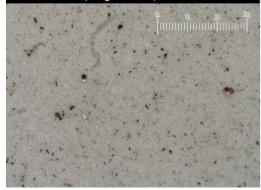
Contamination

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

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service (unconfirmed). The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Particle Filter (Magn: 100 x)



~ – /				Dec2023		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC0076130		
Sample Date		Client Info		19 Dec 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				SEVERE		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
PQ		ASTM D8184*		0		
Iron	ppm	ASTM D5185(m)	>20	37		
Chromium	ppm	ASTM D5185(m)	>20	<1		
Nickel	ppm	ASTM D5185(m)	>20	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>20	8		
Lead	ppm	ASTM D5185(m)	>20	8		
Copper	ppm	ASTM D5185(m)	>20	9 0		
Tin	ppm	ASTM D5185(m)	>20	2		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<1		
Barium	ppm	ASTM D5185(m)	0	<1		
Molybdenum	ppm	ASTM D5185(m)	0	0		
Manganese	ppm	ASTM D5185(m)	0	<1		
Magnesium	ppm	ASTM D5185(m)	0	1 70		
Calcium	ppm	ASTM D5185(m)	50	109		
Phosphorus	ppm	ASTM D5185(m)	330	590		
Zinc	ppm	ASTM D5185(m)	430	553		
Sulfur	ppm	ASTM D5185(m)	760	1989		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	2		
Sodium	ppm	ASTM D5185(m)		3		
Potassium	ppm	ASTM D5185(m)	>20	1		



0 Dec19/23

1.0 (B/HOX aq m 0.4 Pio QCIQ 0.0 Dec19/23

> 12 11 А

cSt (100°C)

Abnorma

Der.

Acid Number

Viscosity @ 100°C

OIL ANALYSIS REPORT

Dar	ticle Coun	+				
491,520 T	ucie couri				T ²⁶	FLU
122,880 Severe	<u> </u>				-24	Particl
30,720	nal lan				22 80 440	Particl
1,920					18 19	Particl
480 -		1			-16 0	Particl
(in 30,720 - 7,680 Abnom - 30,720 - 7,680 Abnom - 30,920 - 480 - 4					-20 4406:1999 Cleanliness Code -14 112 20 412 -10 412	Particl
30 -			/		-12 88	Particl
≓ 8+ 2+					-10 g	Oil Cle
04 4µ	-				6	
	6µ	14µ	21µ	38µ	71µ	FLU
120k -	ticle Trenc	1				Acid N
	4μm					
	авааааа 6µm 					VIS
(iiii 100k - iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii						White
jo 60k						Yellow
40k						Precip
20k Abno	ormal					Silt
0k –					5	Debris
Dec19/23					Dec19/23	Sand/I
De					De	Appea
🔺 Nor	n-ferrous I	Metals				Odor
¹⁰⁰ T	1					Emuls
80-	copper lead					Free V
60 -	manana tin					FIGE V
80- 8						FLU
40						Visc @
20						visc @

FLUID CLEANL	INESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	e 104485		
Particles >6µm		ASTM D7647	>1300	e 26712		
Particles >14µm		ASTM D7647	>160	A 349		
Particles >21µm		ASTM D7647	>40	36		
Particles >38µm		ASTM D7647	>10	1		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>19/17/14	• 24/22/16		
FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	0.86		
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE			
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
	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*		NEG		
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	49TM D7279(m)	67.4	66 1		
SAMPLE IMAG	iES	method	limit/base	current	history1	history2
Color					no image	no image
Bottom				the second	no image	no image
PrtFilter					no image	no image
			ington, ON I		EXTRUDE	
	Particles >4µm Particles >6µm Particles >14µm Particles >14µm Particles >38µm Particles >71µm Oil Cleanliness FLUID DEGRAL Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water Free Water Free Water Visc @ 40°C Visc @ 100°C Visc @ 100°C Viscosity Index (VI) SAMPLE IMAC Color Bottom	Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >71µm Oil Cleanliness FLUID DEGRADATION Acid Number (AN) mg KOHg VISUAL Vhite Metal scalar Yellow Metal scalar Precipitate scalar Silt scalar Sand/Dirt scalar Appearance scalar Codor scalar Free Water scalar Free Water scalar Free Water scalar Free Water scalar Kist of 100°C cSt Visc @ 100°C cSt Visc @ 100°C cSt Visc @ 100°C cSt Visc osity Index (VI) Scale SAMPLE IMAGES Color	Particles >4µm ASTM D7647 Particles >6µm ASTM D7647 Particles >14µm ASTM D7647 Particles >21µm ASTM D7647 Particles >38µm ASTM D7647 Oil Cleanliness ISO 4406 (c) FLUID DEGRADATION method Acid Number (AN) mg KOHg ASTM D974* VISUAL method White Metal scalar Visual* Precipitate scalar Visual* Silt scalar Visual* Sand/Dirt scalar Visual* Appearance scalar Visual* Appearance scalar Visual* Free Water scalar Visual* Appearance Scalar Visual* Emulsified Water scalar Visual* Free Mater scalar Visual* Free Water scalar Visual* Free Mater scalar Visual* Free Mater scalar Visual* Free Water Sca	Particles >4µmASTM D7647>5000Particles >6µmASTM D7647>1300Particles >14µmASTM D7647>10Particles >21µmASTM D7647>3Oil CleanlinessISO 4406 (c)>19/17/14FLUID DEGRADATION method limit/baseAcid Number (AN)mg KOHgASTM D7647Yellow MetalscalarVisual*NONEYellow MetalscalarVisual*NONEPrecipitatescalarVisual*NONESiltscalarVisual*NONEAppearancescalarVisual*NONEAppearancescalarVisual*NORMLOdorscalarVisual*NOREPrecipitatescalarVisual*NONEAppearancescalarVisual*NOREAppearancescalarVisual*NORMLColorcStASTM D7279(m)67.4Visc @ 100°CcStASTM D7279(m)67.4Visc @ 100°CcStASTM D7279(m)8.9Viscosity Index (VI)ScaleASTM D7279(m)67.4PrtFilterImit/baseStalarImit/base	Particles >4µmASTM D7647>5000104485Particles >6µmASTM D7647>1300267121Particles >21µmASTM D7647>160349Particles >38µmASTM D7647>300Particles >38µmASTM D7647>30Particles >71µmASTM D7647>30Oil CleanlinessISO 4406 (c)>19/17/1424/22/16FLUID DEGRADATION method imit/base currentAcid Number (AN)mg K0HgASTM D974*0.600.86VISUALmethod imit/basecurrentWhite MetalscalarVisual*NONENONEPrecipitalescalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NONENONEOdorscalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLVisc@ 40*CcStASTM 0279(m)8.99Visc@ 100*CcStASTM 0277(m)8.99Visc@ 100*CcStASTM 0277(m)105111S	Particles >4µm ASTM D7647 >5000 104485 Particles >6µm ASTM D7647 >1300 26712 Particles >14µm ASTM D7647 >10 349 Particles >21µm ASTM D7647 >10 1 Particles >21µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 OI Cleanliness IS0 400 (c) >19/17/14 24/22/16 FLUID DEGRADATION method Imit/base current history1 Acid Number (AN) mg KOHg ASTM D7647 0.60 0.86 VISUAL method Imit/base current history1 Visual NONE NONE Visual NONE NONE Visual NONE NONE Sitt scalar Visual* NONE NONE

Contact/Location: Daljeet Munday - EXTWOO