[1460] N/A 1460-5673-4002 - HG Ni LAROX #2 HYDRAULIC POWER PACK - Hydraulic System

Sample No: PC0010189

Oil Type: PETRO CANADA HYDREX AW 46

SAMPLE IN	IFORMAT	ION			
Sample Number		PC0010189	PC410381	PC410769	PC410389
Sample Date		24 Jan 2020	04 Apr 2019	12 Nov 2018	10 Apr 2018
Machine Hours		0	0	0	0
Oil Hours		0	0	0	0
Oil Changed		N/A	N/A	N/A	N/A
Sample Status		SEVERE	SEVERE	ABNORMAL	NORMAL
OIL COND	ITION				
Visc @ 40°C	cSt	47.3	■46.4	46.3	46.3
Visc @ 100°C	cSt	3.4	■6.9	6.9	6.9
Viscosity Index (VI)	Scale		□103	1 04	□104
Acid Number (AN)	mg KOH/g	■0.394	□ 0.373	■ 0.46	□ 0.400
CONTAMI	NOITAN				
Water	%	• 0.623			
Particles >4µm		4 24775	• 69999	<u>▲</u> 21215	5283
Particles >6µm		766	11087	△ 2636	■399
Particles > 14µm		5	150	5 2	1 3
ISO 4406:1999 (c)		22/17/10	23/21/14	22/19/13	20/16/11
Silicon	ppm	□ <1	< 1	□0	- <1
Sodium	ppm	■0	0	□0	<u> </u>
Potassium	ppm	□ <1	0	0	0
WEAR MET	TALS				
Iron	ppm	3	2	□ <1	□ <1
Copper	ppm	<u>2</u>	2	<1	<1
Lead	ppm	0	= <1	= <1	0
Tin	ppm	0	0	0	0
Aluminum	ppm	0	0	■ <1	□ 0
Chromium	ppm	■ <1	0	0	0
Molybdenum	ppm	0	0	0	0
Nickel	ppm	<1	<1	<1	<1
Titanium		0	0	0	0
Silver	ppm	0	0		0
Manganese	ppm			0	
Vanadium	ppm	□ 0 0	0	0	0
	ppm	U	O	0	U
ADDITIVES					
Calcium	ppm	10	□35	4 9	5 3
Magnesium	ppm	■ 0	 < 1	<u> </u>	<u> </u>
Zinc	ppm	■398	411	426	439
	ppm	■310	■320	■324	■336
Phosphorus	ppiii	510	320	_ 02 .	
Barium	ppm ppm	■ <1	0 020 03:57:34)	0	0

/ale

Voisey's Bay Mine Site, P.O. Box 7001, Stn. C Happy Valley Goose Bay, NL Canada AOP 1C0 Contact: Robert Feltham robert.feltham@vale.com T: (709)922-4236 F:

Diagnosis

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. We advise that you follow the water drain-off procedure for this component. We recommend that you change the oil. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.All component wear rates are normal. Water and ppm water, ppm water and ppm water contamination levels are severe. Particles >4µm are abnormally high. There is a high concentration of water present in the oil. Free water present. The white residue present in the sample is oil additive precipitate. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Depot: INCVOS
Unique No: 5004218
Signed: Kevin Marson
Report Date: 11 Feb 2020

GRAPHS

