

LINE 3



BOYNE ISLAND, QUE 4680

AUSTRALIA Attn: Heath Mitchell

Tel:

System Information

System Volume: 1500 ltr

Bulk Operating Temp: 419F / 215C

Heating Source:

Blanket:

Fluid: PETRO CANADA CALFLO AF

Make:

Sample Information

Lab No: 02393494 Analyst: Philip Riley Sample Date: 11/23/20 Received Date: 12/17/20 Completed: 01/13/21

Philip Riley

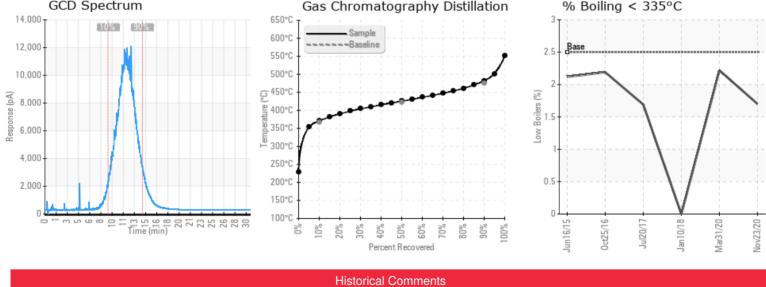
philip.riley@hollyfrontier.com

Recommendation: Unlike the sample from line 1/2, this fluid looks to be in overall good condition. I note the different operating temperatures and this will influence that for sure, with this product operating 50C lower. There is a little evidence of cracking on the GCD curve but nothing substantial. The fluid meets all parameters expected and is fit for further use.

Comments:

Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/ g	%wt	°F/°C	°F/°C	°F/°C	%
11/23/20	12/17/20	20.0y	rtrn b4 gas burner	432 / 222	23.7	29.8	0.07	0.074	698 / 370	798 / 425	899 / 482	1.70
03/31/20	07/07/20	20.0y	NEAR RETURN	421 / 216	19.2	29.8	0.06	0.161	697 / 369	798 / 425	898 / 481	2.22
01/10/18	01/23/18	10.0y		396 / 202	2.6	30.0	0.078	0.038	691 / 366	784 / 418	888 / 476	0.00
07/20/17	09/06/17	20.0y	RETURN B4 GAS BURNER	399 / 204	31.3	30.1	0.080	0.044	697 / 370	801 / 427	897 / 480	1.69
10/25/16	11/04/16	10.0y	RTRN LN BFR GAS BURN	396 / 202	48.3	30.1	0.090	0.055	687 / 364	790 / 421	889 / 476	2.19
		Baseline		435 / 224		32.7	0.03			790 / 421	887 / 475	2.5
A -! - I N I			\/iccocity	@ 40°C					ll- D-!l			
	lumber		Viscosity	w 40°C					lash Poin	t (°C)		
0.70	umber		50 T					235	iash Poin	t (°C)		
	lumber			/ w 40°C					iash Poin	t (°C)		
0.70 - Severe	lumber		50 Severe 45 Abnormal	- W 40°C				235	Base	t (°C)		
0.70 - Severe	lumber		50 T	w 40°C				235 - E 230 - E 225 - E		t (°C)		
0.70 - Severe	umber		50 T Severe 45 - Abnormal	40-0				235 - 230 - 225 - 220 - 220		t (°C)		
0.70 - Severe	umber		50 T Severe 45 - Abnormal	40°C				235 - 230 - 225 - 220 - 220		t (°C)		
0.70 - Severe	umber		50 Severe 45 Abnormal 40	40-0				235 - E 230 - E 225 - E 220 - E 215 - E		t (°C)		
0.70 Severe 0.60 (6)HOX bu) bq	umber		45 - Abnormal 40 - Base 335 Base 25 -	40°C				235 - 230 - 225 - E 220 - 2215 - 220 - 205 - 205 - 205		t (°C)		
0.70 Severe 0.60 Severe 0.60 Abnormal 0.30 Abnormal	umber		45 - Abnormal	W 40°C				235 - 230 - 225 - 220 - 220 - 200 -		t (°C)		
0.70 - Severe	umber		45 - Abnormal 40 - Base 335 Base 25 -	40-0				235 - 230 - 225 - E 220 - 2215 - 220 - 205 - 205 - 205		t (°C)		





	Historical Comments
03/31/20	All parameters meet specification with no concerns. Please resample at normal frequency
01/10/18	The current fluid condition is very similar to the last sample in July 2017. The fluid has normal viscosity, flash point and distillation point. The water and solid contamination is low. Please continue to run this fluid and take one sample in 12 months.
07/20/17	The current fluid has normal viscosity, flash point, acid number and distillation points. It is suitable for further use. Please take one sample in one year to monitor the conditions.
10/25/16	The fluid conditions are very good. The GCD, viscosity, flash point, acid number are all normal. Please take one sample in one year to monitor the conditions.

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