

# **UPPER TANK FARM**

### Customer: PTRHTF10125

TRANSMONTAIGNE
700 RIVER ROAD
COVINGTON, KY 41017 USA

Attn: ART HILTON Tel: 1(859)331-0900

E-Mail: ahilton@transmontaigne.com

## System Information

System Volume: 2500 gal

Bulk Operating Temp: 300F / 149C

Heating Source:

Blanket:

Fluid: PETRO CANADA PETRO-THERM

Make: HEATEC INC

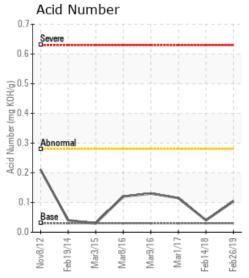
### Sample Information

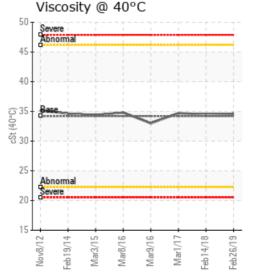
Lab No: 02270305 Analyst: Joe Goecke Sample Date: 02/26/19 Received Date: 02/27/19 Completed: 03/04/19

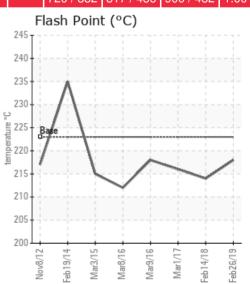
Recommendation: Oil is in very good condition. Slight increase in low boilers but well within limits of operation. Flash point and viscosity are excellent. Continue to use and resample at next scheduled interval.

#### 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	%
02/26/19	02/27/19	6y	BOOSTER PUMP	424 / 218	4.8	34.6	0.104	0.050	687 / 364	789 / 420	896 / 480	2.58
02/14/18	02/15/18	6y		417 / 214	5.5	34.5	0.04	0.023	725 / 385	804 / 429	912 / 489	0.00
03/01/17	03/13/17	5y	PUMP	421 / 216	137.6	34.7	0.115	0.029	705 / 374	808 / 431	928 / 498	1.45
03/09/16	03/16/16	0y	BOOSTER PUMP	424 / 218	23.4	33.0	0.13	0.065	702 / 372	804 / 429	915 / 490	1.49
03/08/16	03/16/16	0y	BOOSTER PUMP	414 / 212	29.7	34.8	0.12	0.026	708 / 376	809 / 432	934 / 501	1.00
03/03/15	03/20/15	4380y	UPPER TAND FARM	419 / 215	6.9	34.4	0.03	0.123	704 / 374	804 / 429	906 / 486	1.07
	433 / 223		34.2	0.03		720 / 382	817 / 436	900 / 482	1.00			

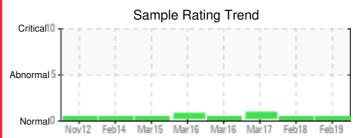






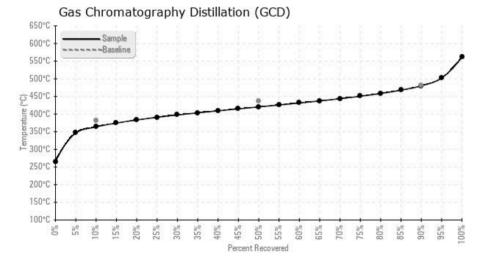


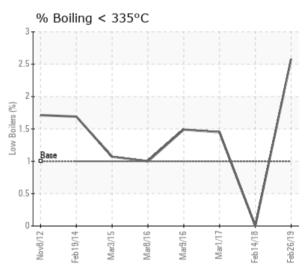




Sample Date	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
02/26/19	2	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	42	0
02/14/18	4	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	1	45	0
03/01/17	16	0	0	0	0	0	0	0	0	0	3	8	0	0	0	0	0	0	0	0	6	6	61	2
03/09/16	8	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	0	0	0	2	3	53	0
03/08/16	9	0	0	0	0	0	0	0	0	0	3	4	0	0	0	0	0	0	0	0	2	3	55	0
03/03/15	11	0	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	5	4	60	1
Baseline Data			0	0						0			0	0					0				0	

Elemental analysis results (above) in parts per million (ppm). [10,000 ppm = 1.0%]





	Historical Comments
02/14/18	Sample looks great. Continue to use and resample at next scheduled interval.
03/01/17	Oil condition is within range for normal operation. Continue to monitor as normal and resample at next scheduled interval (GCD) 90% Distillation Point is abnormally high.
03/09/16	Oil is in good condition, no issues. Please resample at the next maintenance interval.
03/08/16	Oil is in good condition, no issues. Please resample at the next maintenance interval. (GCD) 90% Distillation Point is abnormally high.
03/03/15	Sample is in good condition. Sample at the next maintenance interval.

Petro-Canada makes no representation or warranty of any kind, either express or implied, as to the accuracy or completeness of the analysis and assumes no responsibility and shall have no liability whatsoever with respect to such analysis, or a party's use of it. Petro-Canada is a division of HollyFrontier Corporation.