



HYDRI CANADIAN COMPANY

Customer: PTRHTF20264	System Information	Sample Information
HYDRIL CANADIAN COMPANY 2307 8TH STREET NISKU, AB T9E 7Z3 Canada Attn: Bhargav Kuppa Tel: (587)338-5981 E-Mail: bkuppa@tenaris.com	System Volume: 385 ltr Bulk Operating Temp: 195F / 91C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: JACO WELDING	Lab No: 02471429 Analyst: Lyle Dach Sample Date: 02/07/22 Received Date: 02/10/22 Completed: 02/23/22 Lyle Dach lyle.dach@hollyfrontier.com

Recommendation: Acid number is moderate recommended limit is 1.0, pentane insolubles are high. Filtration could be used to remove the solids. With the low volume a fluid change could be consider to deal with the fluid acidity and higher levels of solids.

Comments: Pentane Insolubles levels are severely high. Acid Number (AN) is abnormally high.

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	%
02/07/22	02/10/22	2.0y	middle of the tank	432 / 222	198.2	33.7	0.62	0.730	714 / 379	811 / 433	906 / 486	2.13
Baseline Data				433 / 223		34.2	0.03		720 / 382	817 / 436	900 / 482	1.00



