

SILANE 3.0 DISTILLATION

Customer: PTRHTF10093
 REC GROUP
 3322 ROAD N.N.E.
 MOSES LAKE, WA 98837 US
 Attn: Sam Bright
 Tel: (509)766-8902
 E-Mail: sam.bright@recsilicon.com

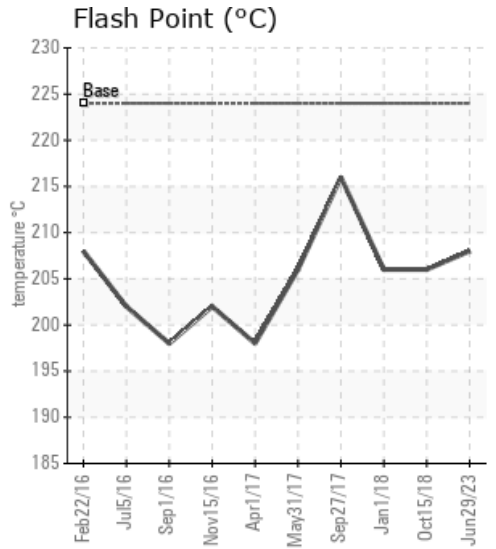
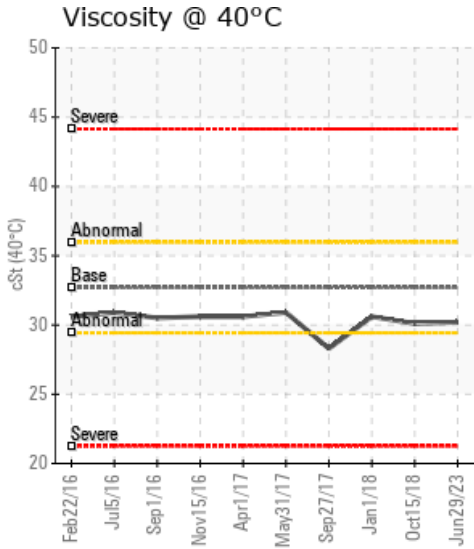
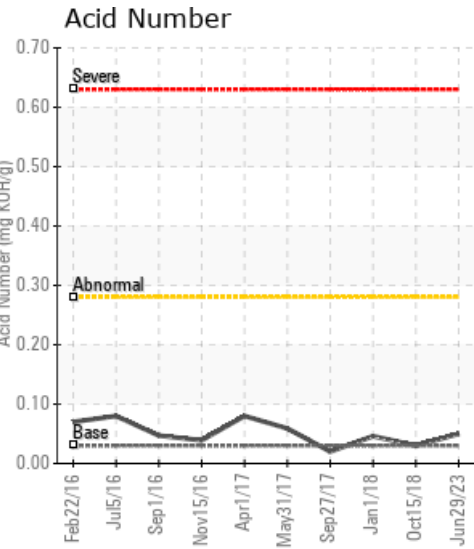
System Information
 System Volume: 50000 gal
 Bulk Operating Temp: 420F / 216C
 Heating Source:
 Blanket:
 Fluid: PETRO CANADA CALFLO AF
 Make: COEN

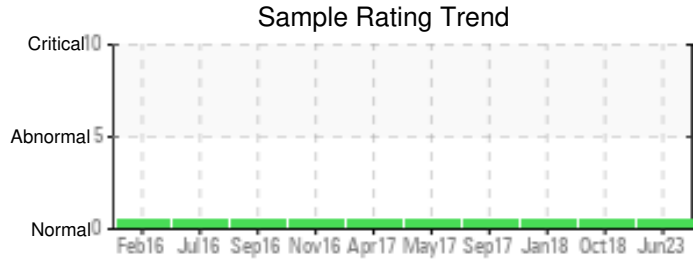
Sample Information
 Lab No: 02568100
 Analyst: Ron LeBlanc
 Sample Date: 06/29/23
 Received Date: 07/05/23
 Completed: 07/10/23
 Ron LeBlanc
 Ronald.LeBlancSr@HFSinclair.com

Recommendation: Sample looks excellent. Resample at normal interval.

Comments:

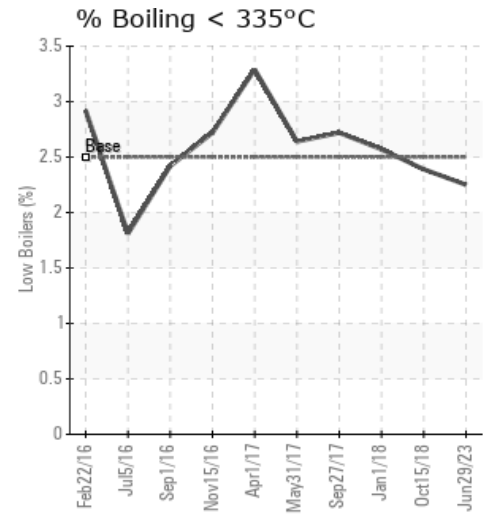
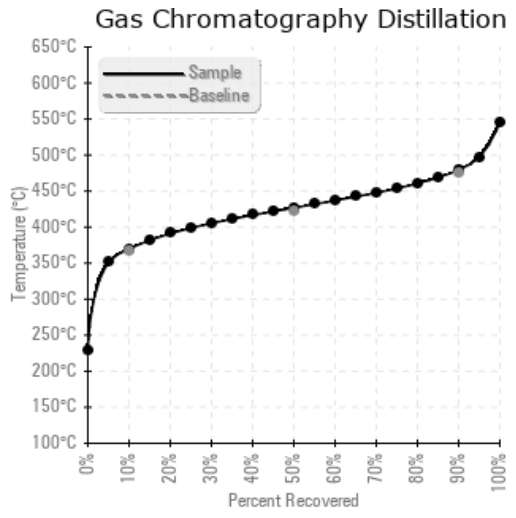
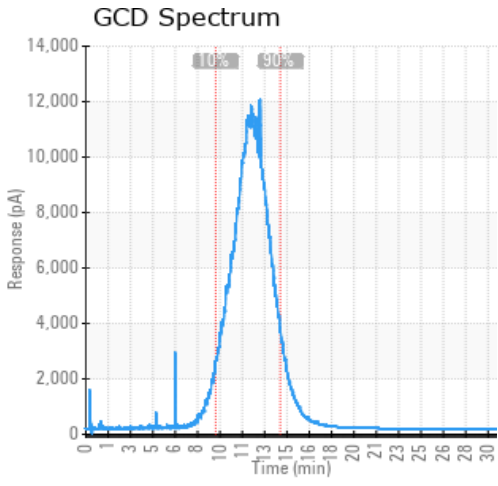
Sample Date	Received Date	Fluid Age	Sample Location	Flash Point (COC)	Water (KF)	Viscosity (40°C)	Acid Number	Solids	GCD 10%	GCD 50%	GCD 90%	GCD % < 335°C
	mm/dd/yy			°F/°C	ppm	cSt	mg/KOH/g	%wt	°F/°C	°F/°C	°F/°C	%
06/29/23	07/05/23	0.0m	expansion tank	406 / 208	6.6	30.2	0.05	0.041	697 / 370	800 / 427	895 / 480	2.25
06/29/23	07/05/23	171.0m	expansion tank	406 / 208	6.0	30.1	0.05	0.046	696 / 369	799 / 426	895 / 479	2.25
10/15/18	11/06/18	114.0m		403 / 206	15.2	30.1	0.03	0.045	690 / 366	796 / 425	890 / 477	2.39
01/01/18	01/18/18	107.0m		403 / 206	1.7	30.6	0.046	0.100	686 / 363	793 / 423	888 / 475	2.57
09/27/17	09/28/17	102.0m		421 / 216	12.0	28.3	0.02	0.052	688 / 364	795 / 424	891 / 477	2.72
Baseline Data				435 / 224		32.7	0.03		693 / 367	790 / 421	887 / 475	2.5





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	
06/29/23	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	1	
06/29/23	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	1
10/15/18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0
01/01/18	6	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	25	0
09/27/17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0
Baseline Data			0	0						0			0	0					0					270	

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



Historical Comments

06/29/23	Sample looks excellent. Resample at next normal interval.
10/15/18	Sample is normal. Re-sample at regular interval.
01/01/18	Sample appears normal. Silicon level is acceptable. Resample at normal interval.
09/27/17	Silicon dropped from previous sample. Phosphorous dropped slightly as well. Sodium increased slightly. Otherwise, the sample looks normal.

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