

Reference: DALIA18
Crude: Dalia



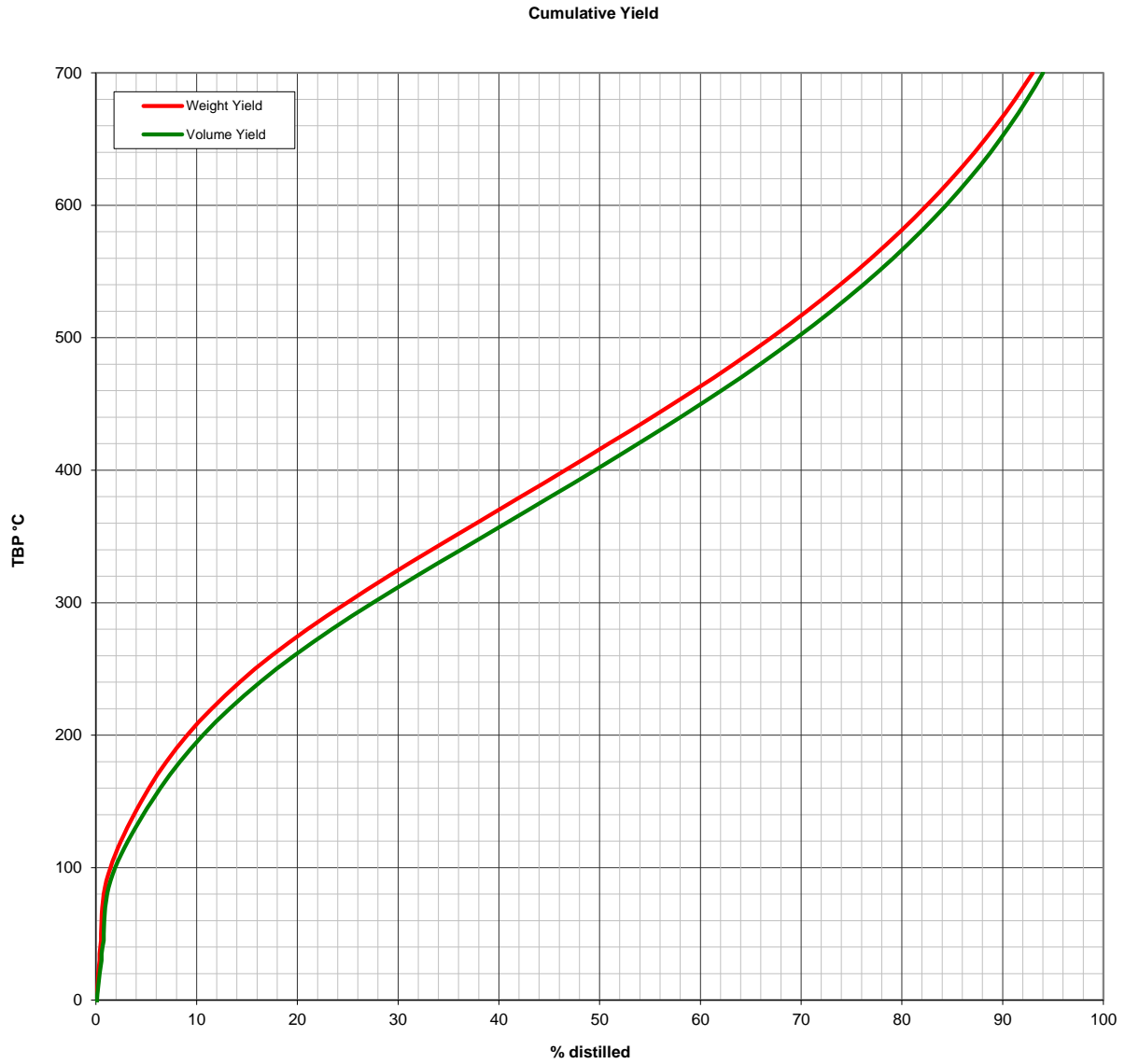
Crude Summary Report

General Information		Molecules (%wt on crude)									Whole Crude Properties			
Reference:	DALIA18	methane + ethane								0.00	Density @ 15°C (g/cc)	0.9136		
Name:	Dalia	propane								0.01	API Gravity	23.3		
Origin:	Angola	isobutane								0.05	Total Sulfur (% wt)	0.51		
		n-butane								0.18	Pour Point (°C)	-48		
Assay Date:	7/21/2020	isopentane								0.13	Viscosity @ 20°C (cSt)	115.8		
		n-pentane								0.15	Viscosity @ 40°C (cSt)	40.1		
Comments:		cyclopentane								0.03	Nickel (ppm)	19.7		
		C6 paraffins								0.20	Vanadium (ppm)	8.2		
		C6 naphthenes								0.29	Total Nitrogen (ppm)	2278		
		benzene								0.00	Total Acid Number (mgKOH/g)	1.51		
		C7 paraffins								0.22	Mercaptan Sulfur (ppm)	4.0		
		C7 naphthenes								0.71	Hydrogen Sulfide (ppm)	0.0		
		toluene								0.12	Reid Vapor Pressure (kPa)	7.5		
													Salt (ptb)	23.6
Cut Data		Atmospheric Cuts									Vacuum Cuts			
Start (°C)	IBP	C5	65	100	150	200	250	300	350	370	370	450	500	550
End (°C)	FBP	65	100	150	200	250	300	350	370	FBP	450	500	550	FBP
Yield (% wt)		0.4	0.8	3.1	4.6	6.7	9.1	10.6	4.4	60.0	17.3	9.8	8.4	24.6
Yield (% vol)		0.6	1.0	3.6	5.1	7.3	9.6	11.0	4.5	57.1	17.1	9.5	8.1	22.3
Cumulative Yield (% wt)		0.2	0.6	1.4	4.5	9.1	15.8	24.9	35.5	40.0	40.0	57.3	67.0	75.4
Volume Average B.P. (°C)	413	35.5	87	127	177	226	276	325	360	532	409	474	524	652
Density @ 15°C (g/cc)	0.9136	0.6364	0.7481	0.7748	0.8152	0.8443	0.8705	0.8851	0.9088	0.9610	0.9224	0.9395	0.9455	1.0055
API Gravity	23.3	90.8	57.6	51.1	42.0	36.0	31.0	28.3	24.1	15.7	21.8	19.0	18.1	9.2
UOPK	11.74			11.56	11.43	11.43	11.44	11.58	11.49	11.77	11.61	11.74	11.92	11.78
Molecular Weight (g/mol)				110	136	168	204	248	279	526	334	431	550	1007
Total Sulfur (% wt)	0.51	0.006	0.011	0.020	0.039	0.075	0.153	0.329	0.441	0.73	0.50	0.60	0.70	0.96
Mercaptan Sulfur (ppm)	4.0	29.7	17.6	12.0	8.6	3.5	1.4							
Total Nitrogen (ppm)	2278					3	18	89	232	3759	781	1699	2505	7102
Basic Nitrogen (ppm)	708					2	13	58	126	1158	301	588	840	2096
Total Acid Number (mgKOH/g)	1.51	0.01	0.06	0.24	0.70	1.39	2.21	2.83	2.98	1.24	2.60	1.70	1.07	0.17
Viscosity @ 20°C (cSt)	116				1.48									
Viscosity @ 40°C (cSt)	40.1				1.10	1.75	3.25	7.58	16.5					
Viscosity @ 50°C (cSt)	26.2					1.49	2.65	5.70	11.5	1061	36.9	171	497	
Viscosity @ 60°C (cSt)										500	24.0	95.3	253	
Viscosity @ 100°C (cSt)										57.7	6.84	17.9	36.2	2581
Viscosity @ 130°C (cSt)														413
Viscosity @ 150°C (cSt)														164
RON (Clear)		79.3	74.6	64.7	65.9									
MON (Clear)		77.6	75.5	62.5	52.1									
Paraffins (% wt)	11.8	92.6	30.6	13.0	14.6									
Naphthenes (%wt)	40.1	7.4	69.1	79.2	73.9									
Aromatics (% wt)	48.1	0.0	0.3	7.7	11.5									
Pour Point (°C)	-48					-93	-74	-56	-46	7	-29	-8	6	59
Cloud Point (°C)						-91	-72	-54						
Freeze Point (°C)						-102	-88	-69						
Smoke Point (mm)						23	18	14						
Cetane Index (D4737A)						28	35	41	49	49				
Naphthalenes (% vol)						0.2	3.4	9.2	11.6					
Aniline Point (°C)				48.2	48.9	52.7	58.8	65.7	70.0		77.4	85.4	88.7	
Hydrogen (% wt)	12.6	16.5	14.9	14.2	13.9	13.1	13.0	12.8	12.3		12.3	12.3	12.3	
Total Wax (% wt)	1.5									2.0	2.1	1.9	2.2	2.0
C7 Asphaltenes (% wt)	0.7									1.1	0.0	0.0	0.0	2.7
Micro Carbon Residue (% wt)	4.7									7.8	0.3	1.7	18.3	
Vanadium (ppm)	8.2									13.7	0.0	0.0	33.4	
Nickel (ppm)	19.7									32.8	0.0	0.0	80.1	
Iron (ppm)	6.1									10.1	0.0	0.0	24.7	
Sodium (ppm)	1.0													
Mercury (ppb)	1.0													
Arsenic (ppb)	135													

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Yield Distribution



Cumulative Volume % Distilled at 10 Degree C (TBP) Intervals

	0	10	20	30	40	50	60	70	80	90
0				0.6	0.7	0.8	0.8	0.9	1.1	1.4
100	1.9	2.5	3.2	3.9	4.7	5.5	6.4	7.3	8.4	9.4
200	10.6	11.9	13.3	14.7	16.3	17.9	19.7	21.5	23.4	25.4
300	27.5	29.6	31.8	34.0	36.2	38.5	40.7	42.9	45.2	47.3
400	49.5	51.7	53.8	55.9	58.0	60.1	62.1	64.0	65.9	67.8
500	69.6	71.3	73.0	74.6	76.2	77.7	79.1	80.5	81.9	83.2