Reference: CPCBL18A
Crude: CPC Blend

ExxonMobil

Crude Summary Report

General Information		Molecules (%wt on crude)		Whole Crude Properties	
Reference:	CPCBL18A	methane + ethane	0.00	Density @ 15°C (g/cc)	0.7964
Name:	CPC Blend	propane	0.22	**API Gravity**	**46.1**
		isobutane	0.70	Total Sulfur (% wt)	0.58
Origin:	Kazakhstan	n-butane	2.33	Pour Point (°C)	-15
		isopentane	2.21	Viscosity @ 20°C (cSt)	2.7
Assay Date:	12/17/2020	n-pentane	2.42	Viscosity @ 40°C (cSt)	1.7
		cyclopentane	0.15	Nickel (ppm)	0.4
Comments:		C6 paraffins	4.76	Vanadium (ppm)	0.6
		C6 naphthenes	1.26	Total Nitrogen (ppm)	206
		benzene	0.20	Total Acid Number (mgKOH/g)	0.05
		C7 paraffins	3.86	Mercaptan Sulfur (ppm)	661
		C7 naphthenes	2.58	Hydrogen Sulfide (ppm)	0.0
		toluene	0.73	Reid Vapor Pressure (kPa)	59.2

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)		8.0	8.3	13.3	12.7	11.4	10.2	8.6	3.0	21.8	9.8	4.4	3.1	4.5
Yield (% vol)		9.9	9.2	14.0	12.8	11.1	9.6	8.0	2.7	18.9	8.7	3.8	2.7	3.7
Cumulative Yield (% wt)		2.7	10.7	19.0	32.3	45.0	56.4	66.6	75.2	78.2	78.2	88.0	92.4	95.5
Volume Average B.P. (°C)	229	39.8	83	125	174	224	274	324	360	480	407	474	523	627
Density @ 15°C (g/cc)	0.7964	0.6413	0.7135	0.7539	0.7858	0.8108	0.8406	0.8585	0.8810	0.9107	0.8874	0.9099	0.9218	0.9585
API Gravity	46.1	89.1	66.8	56.1	48.5	42.9	36.8	33.2	29.0	23.8	27.9	23.9	21.9	16.1
UOPK	12.14			11.87	11.84	11.88	11.83	11.93	11.85	12.15	12.05	12.12	12.23	12.25
Molecular Weight (g/mol)				110	138	171	209	255	289	453	348	450	568	939
Total Sulfur (% wt)	0.58	0.065	0.145	0.229	0.232	0.251	0.57	0.96	1.18	1.36	1.20	1.26	1.41	1.75
Mercaptan Sulfur (ppm)	661.0	354.2	535.3	767.6	1144.7	837.3	328.8							
Total Nitrogen (ppm)	206					1	6	68	216	887	462	696	850	2019
Basic Nitrogen (ppm)	42					0	2	10	22	185	57	141	191	500
Total Acid Number (mgKOH/g)	0.05	0.00	0.00	0.01	0.02	0.03	0.06	0.08	0.10	0.14	0.12	0.15	0.17	0.14
Viscosity @ 20°C (cSt)	2.69				1.28									
Viscosity @ 40°C (cSt)	1.67				0.99	1.55	2.76	5.51	9.86					
Viscosity @ 50°C (cSt)	1.38					1.35	2.31	4.36	7.40	65.6	16.7	59.7	158	
Viscosity @ 60°C (cSt)										41.6	12.1	38.1	92.0	
Viscosity @ 100°C (cSt)										10.9	4.55	10.3	19.0	147
Viscosity @ 130°C (cSt)														43.2
Viscosity @ 150°C (cSt)														23.2
RON (Clear)		77.1	39.2	56.1	31.5									
MON (Clear)		74.2	53.6	54.7	31.8									
Paraffins (% wt)	50.0	97.9	69.4	42.5	55.0									
Naphthenes (%wt)	28.5	2.1	28.3	41.2	27.7									
Aromatics (% wt)	21.5	0.0	2.3	16.3	17.3									
Pour Point (°C)	-15					-46	-22	1	13	34	29	47	56	36
Cloud Point (°C)						-45	-20	3						
Freeze Point (°C)					-57	-39	-16							
Smoke Point (mm)					24	20	16							
Cetane Index (D4737A)					40	49	53	61	61					
Naphthalenes (% vol)					0.0	1.4	5.6	7.8						
Aniline Point (°C)				48.2	54.1	63.8	72.0	79.2	84.2		91.7	100.8	106.0	
Hydrogen (% wt)	14.1	16.6	15.5	14.2	14.2	13.8	13.6	13.2	13.0		12.9	12.8	12.8	
Total Wax (% wt)	14.0									15.9	18.8	16.4	15.7	9.1
C7 Asphaltenes (% wt)	0.0									0.1		0.0	0.0	0.3
Micro Carbon Residue (% wt)	0.5									2.4		0.1	1.1	10.6
Vanadium (ppm)	0.6									2.7		0.0	0.0	13.2
Nickel (ppm)	0.4									1.9		0.0	0.0	9.2
Iron (ppm)	1.1									4.9		0.0	0.0	23.6
Sodium (ppm)	4.9													
Mercury (ppb)	2.6													
Arsenic (ppb)	9													

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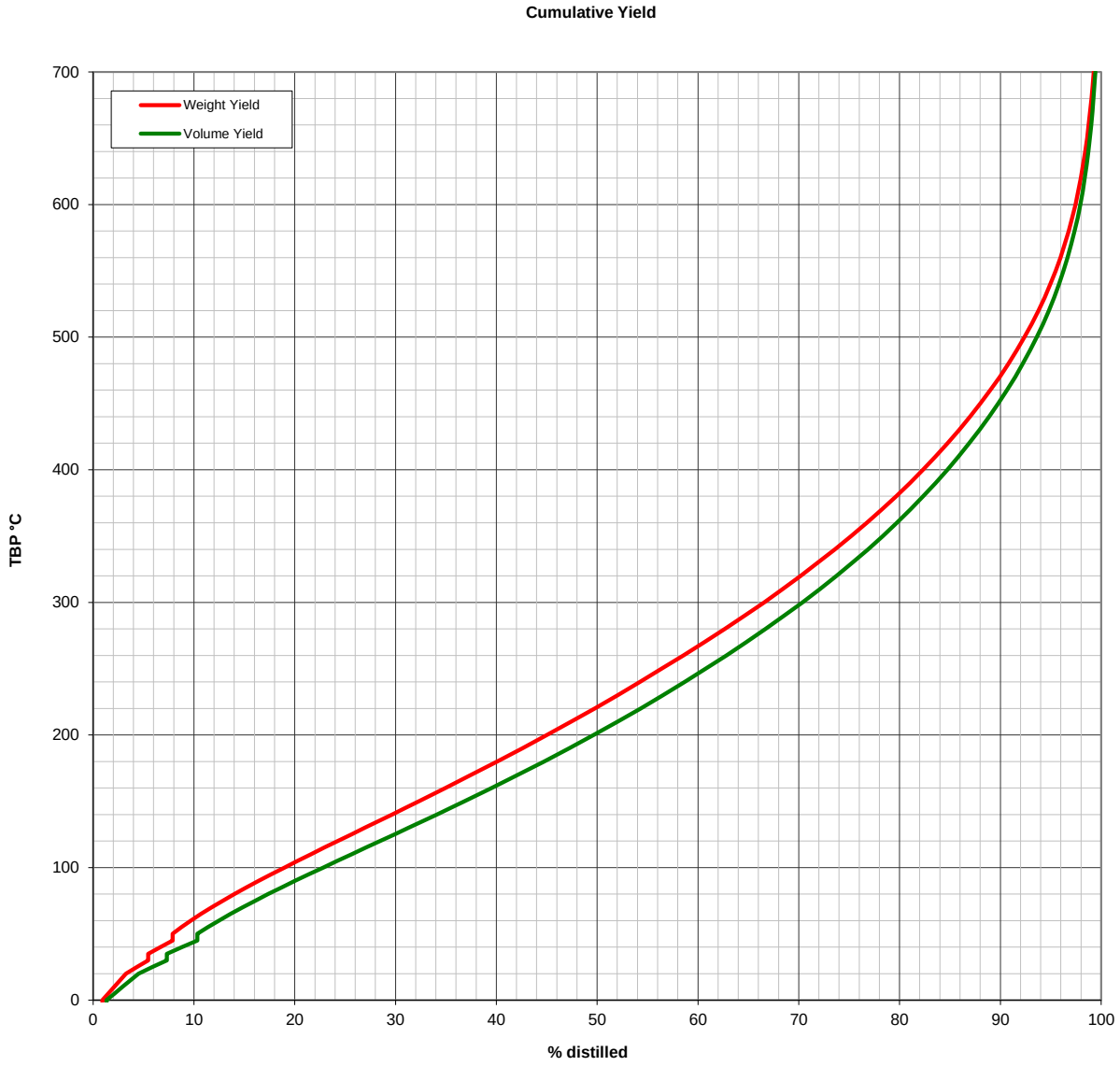
Yield Distribution



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

	0	10	20	30	40	50	60	70	80	90
0				7.3	8.8	10.3	12.5	14.8	17.4	20.0
100	22.8	25.6	28.5	31.3	34.1	36.8	39.5	42.2	44.7	47.2
200	49.7	52.0	54.3	56.5	58.7	60.8	62.8	64.8	66.7	68.6
300	70.4	72.1	73.7	75.3	76.9	78.3	79.7	81.1	82.4	83.6
400	84.7	85.9	86.9	87.9	88.9	89.8	90.7	91.5	92.2	92.9
500	93.6	94.2	94.8	95.3	95.8	96.3	96.7	97.0	97.4	97.7