Reference: QUAIB24Y
Crude: Qua Iboe

ExxonMobil

Crude Summary Report

General Information		Molecules (%wt on crude)		Whole Crude Properties	
Reference:	QUAIB24Y	methane + ethane	0.01	Density @ 15°C (g/cc)	0.8379
Name:	Qua Iboe	propane	0.25	**API Gravity**	**37.3**
		isobutane	0.27	Total Sulfur (% wt)	0.12
Origin:	Nigeria	n-butane	0.78	Pour Point (°C)	9
		isopentane	0.84	Viscosity @ 20°C (cSt)	4.8
Assay Date:	1/19/2024	n-pentane	0.88	Viscosity @ 40°C (cSt)	3.1
		cyclopentane	0.19	Nickel (ppm)	3.5
Comments:		C6 paraffins	1.94	Vanadium (ppm)	0.3
		C6 naphthenes	1.78	Total Nitrogen (ppm)	862
		benzene	0.11	Total Acid Number (mgKOH/g)	0.27
		C7 paraffins	1.78	Mercaptan Sulfur (ppm)	6.1
		C7 naphthenes	3.23	Hydrogen Sulfide (ppm)	0.0
		toluene	0.45	Reid Vapor Pressure (kPa)	41.8

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)		4.4	6.0	10.4	9.3	10.8	12.4	11.8	4.4	29.2	14.3	5.7	3.5	5.7
Yield (% vol)		5.6	6.8	11.3	9.7	10.9	12.2	11.5	4.1	26.1	13.2	5.1	3.1	4.7
Cumulative Yield (% wt)		1.3	5.6	11.7	22.1	31.4	42.2	54.6	66.5	70.8	70.8	85.1	90.8	94.3
Volume Average B.P. (°C)	273	42.1	83	124	176	226	275	324	360	475	407	473	523	633
Density @ 15°C (g/cc)	0.8379	0.6543	0.7363	0.7691	0.8016	0.8264	0.8488	0.8611	0.8822	0.9341	0.9040	0.9319	0.9526	1.0087
API Gravity	37.3	84.7	60.6	52.4	44.9	39.6	35.1	32.7	28.8	19.9	25.0	20.3	17.0	8.7
UOPK	11.86			11.62	11.61	11.67	11.72	11.89	11.83	11.81	11.83	11.83	11.83	11.66
Molecular Weight (g/mol)				109	137	170	208	255	289	429	340	434	540	894
Total Sulfur (% wt)	0.12	0.000	0.001	0.005	0.018	0.038	0.082	0.144	0.171	0.271	0.164	0.242	0.342	0.52
Mercaptan Sulfur (ppm)	6.1	0.0	0.0	0.1	0.8	2.0	1.8							
Total Nitrogen (ppm)	862					11	30	151	374	2818	757	1834	4056	8212
Basic Nitrogen (ppm)	379					7	29	105	229	1204	381	753	1717	3409
Total Acid Number (mgKOH/g)	0.27	0.23	0.18	0.10	0.03	0.04	0.17	0.44	0.47	0.47	0.45	0.58	0.47	0.42
Viscosity @ 20°C (cSt)	4.80				1.29									
Viscosity @ 40°C (cSt)	3.12				0.99	1.61	2.92	6.10	12.1					
Viscosity @ 50°C (cSt)	2.61					1.39	2.42	4.72	8.78	190	27.4	194	912	
Viscosity @ 60°C (cSt)										105	18.6	107	425	
Viscosity @ 100°C (cSt)										19.3	5.91	19.3	48.3	2966
Viscosity @ 130°C (cSt)														400
Viscosity @ 150°C (cSt)														148
RON (Clear)		77.7	52.6	63.9	37.7									
MON (Clear)		76.4	65.8	61.4	36.3									
Paraffins (% wt)	29.5	93.6	47.2	25.0	39.5									
Naphthenes (%wt)	44.4	6.4	50.8	63.3	45.4									
Aromatics (% wt)	26.1	0.0	2.0	11.7	15.1									
Pour Point (°C)	9					-49	-28	1	17	50	35	50	58	58
Cloud Point (°C)						-47	-25	4						
Freeze Point (°C)					-58	-43	-22							
Smoke Point (mm)					23	20	17							
Cetane Index (D4737A)					33	42	50	60	61					
Naphthalenes (% vol)					0.1	3.1	7.4	9.0						
Aniline Point (°C)				47.4	52.2	60.2	68.0	76.1	80.4		89.1	93.3	83.7	
Hydrogen (% wt)	13.5	16.5	15.1	14.1	14.1	13.8	13.5	13.4	13.1		12.7	12.5	12.2	
Total Wax (% wt)	16.1									25.5	34.2	35.3	14.7	0.4
C7 Asphaltenes (% wt)	0.0									0.0		0.0	0.0	0.2
Micro Carbon Residue (% wt)	1.3									4.5		0.4	2.8	20.7
Vanadium (ppm)	0.3									1.0		0.0	0.0	4.9
Nickel (ppm)	3.5									12.0		0.0	0.0	61.6
Iron (ppm)	1.5									5.3		0.0	0.0	27.0
Sodium (ppm)	1.8													
Mercury (ppb)	1.0													
Arsenic (ppb)	113													

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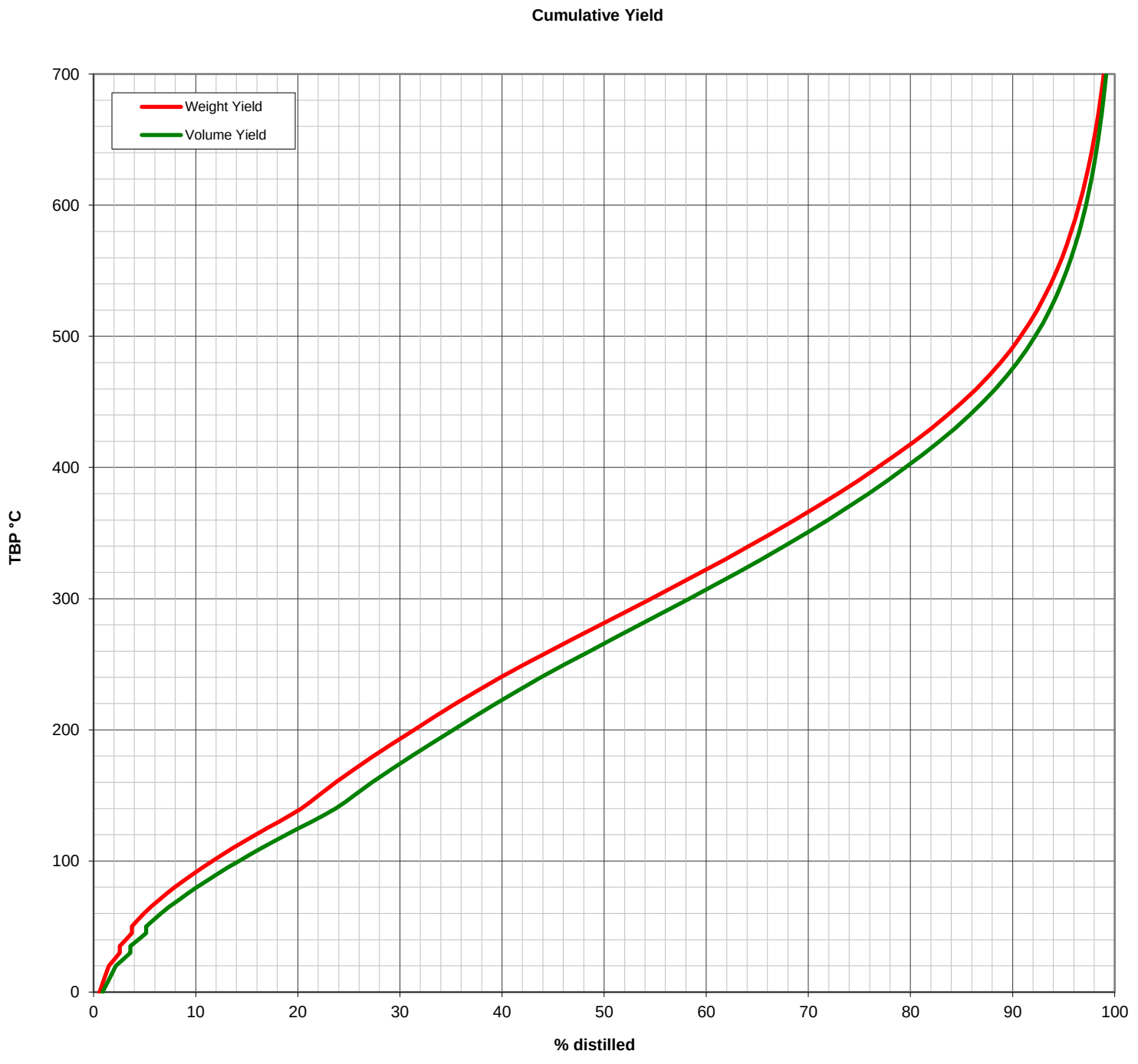
Crude: **Qua Iboe**

Yield Distribution



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

	0	10	20	30	40	50	60	70	80	90
0				3.6	4.4	5.2	6.6	8.3	10.1	12.1
100	14.2	16.5	18.9	21.4	23.7	25.5	27.3	29.2	31.2	33.2
200	35.2	37.3	39.4	41.6	43.8	46.2	48.6	51.0	53.5	55.9
300	58.3	60.7	63.1	65.4	67.6	69.8	71.9	73.9	75.9	77.7
400	79.5	81.2	82.8	84.4	85.8	87.1	88.3	89.4	90.5	91.4
500	92.2	93.0	93.6	94.3	94.8	95.3	95.7	96.2	96.5	96.9