

Reference: USAN25Y
Crude: Usan



Crude Summary Report

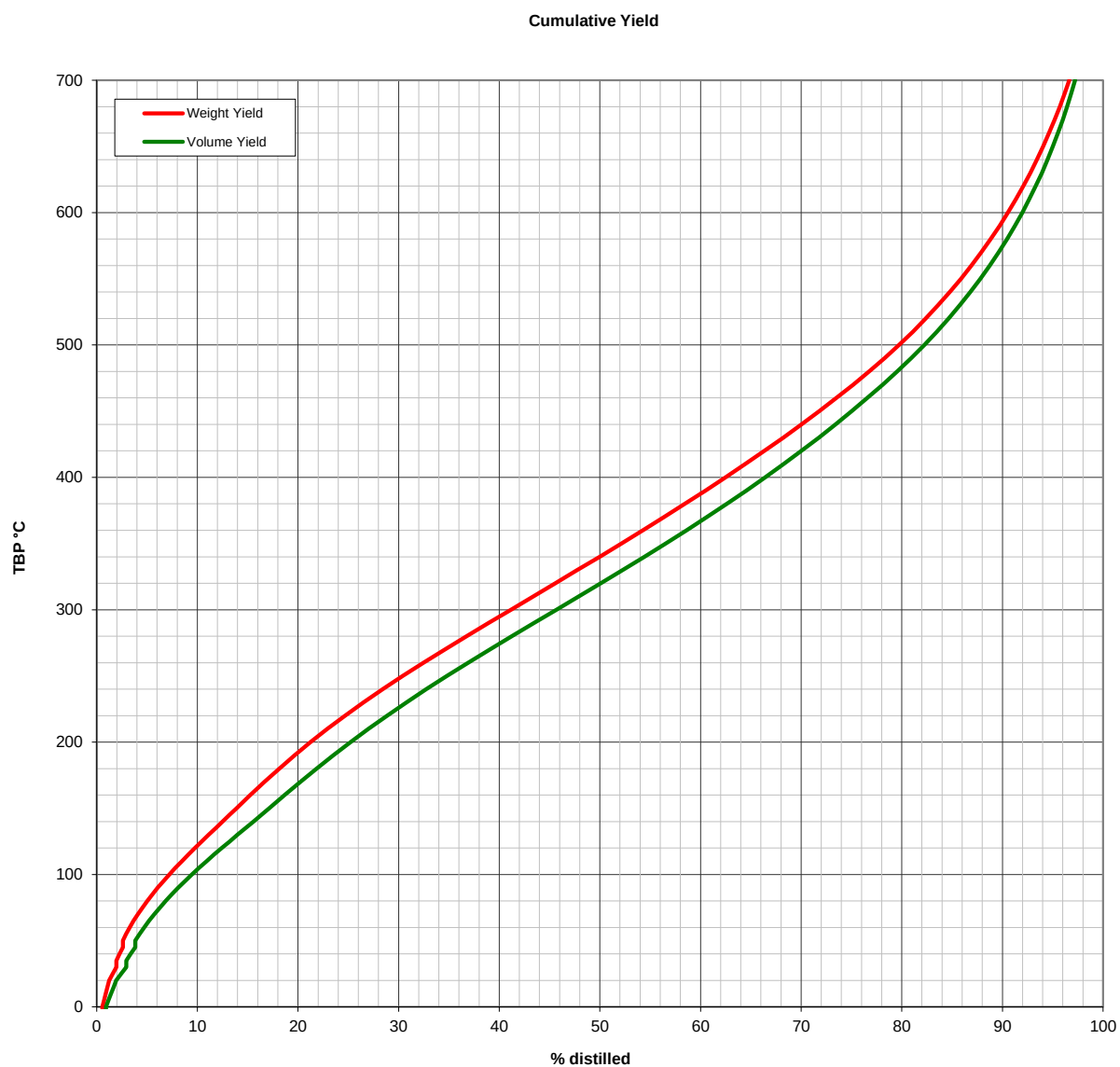
General Information		Molecules (%wt on crude)		Whole Crude Properties	
Reference:	USAN25Y	methane + ethane	0.02	Density @ 15°C (g/cc)	0.8901
Name:	Usan	propane	0.29	API Gravity	27.4
		isobutane	0.32	Total Sulfur (% wt)	0.29
Origin:	Nigeria	n-butane	0.76	Pour Point (°C)	-77
		isopentane	0.82	Viscosity @ 20°C (cSt)	22.2
Assay Date:	2/21/2025	n-pentane	0.73	Viscosity @ 40°C (cSt)	10.7
		cyclopentane	0.14	Nickel (ppm)	16.6
Comments:		C6 paraffins	1.47	Vanadium (ppm)	3.9
		C6 naphthenes	1.20	Total Nitrogen (ppm)	2195
		benzene	0.09	Total Acid Number (mgKOH/g)	1.65
		C7 paraffins	1.18	Mercaptan Sulfur (ppm)	17.9
		C7 naphthenes	2.01	Hydrogen Sulfide (ppm)	0.0
		toluene	0.26	Reid Vapor Pressure (kPa)	42.3

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)		2.6	3.5	6.7	7.4	9.2	10.7	11.0	4.3	43.6		15.4	7.9	6.2	14.1
Yield (% vol)		3.5	4.3	7.7	8.1	9.6	10.9	10.9	4.1	39.4		14.4	7.2	5.6	12.2
Cumulative Yield (% wt)		1.1	3.7	7.2	13.9	21.3	30.4	41.1	52.1	56.4		56.4	71.8	79.7	85.9
Volume Average B.P. (°C)	331	41.0	83	125	176	226	275	325	360	510		408	474	524	644
Density @ 15°C (g/cc)	0.8901	0.6545	0.7396	0.7713	0.8083	0.8473	0.8769	0.8973	0.9198	0.9833		0.9507	0.9743	0.9802	1.0285
API Gravity	27.4	84.7	59.8	51.9	43.5	35.4	29.8	26.1	22.3	12.3		17.3	13.7	12.8	6.0
UOPK	11.55			11.60	11.52	11.38	11.35	11.41	11.35	11.40		11.26	11.32	11.50	11.48
Molecular Weight (g/mol)				109	136	167	202	244	275	460		321	409	519	915
Total Sulfur (% wt)	0.29	0.000	0.002	0.009	0.026	0.067	0.159	0.266	0.320	0.499		0.331	0.426	0.56	0.70
Mercaptan Sulfur (ppm)	17.9														
Total Nitrogen (ppm)	2195					21	72	292	616	4876		1232	2462	4163	10518
Basic Nitrogen (ppm)	868					20	70	206	416	1875		663	1000	2002	3634
Total Acid Number (mgKOH/g)	1.65	0.00	0.01	0.04	0.17	0.53	1.29	2.30	2.71	2.48		3.05	3.26	3.00	1.20
Viscosity @ 20°C (cSt)	22.2				1.41										
Viscosity @ 40°C (cSt)	10.7				1.07	1.76	3.49	9.15	23.5						
Viscosity @ 50°C (cSt)	8.00					1.50	2.82	6.73	15.6	2717		71.7	774	3881	
Viscosity @ 60°C (cSt)										1080		42.4	348	1470	
Viscosity @ 100°C (cSt)										81.0		9.56	37.4	96.9	15637
Viscosity @ 130°C (cSt)															1334
Viscosity @ 150°C (cSt)															397
RON (Clear)		78.7	55.7	66.5	46.3										
MON (Clear)		77.0	67.6	62.9	42.4										
Paraffins (% wt)	16.1	94.6	46.9	23.8	29.9										
Naphthenes (%wt)	40.9	5.4	50.7	62.7	53.3										
Aromatics (% wt)	43.0	0.0	2.4	13.5	16.8										
Pour Point (°C)	-77					-61	-38	-11	5	42		19	27	30	68
Cloud Point (°C)						-59	-36	-9							
Freeze Point (°C)						-74	-55	-32							
Smoke Point (mm)						23	18	13							
Cetane Index (D4737A)						31	34	38	44	44					
Naphthalenes (% vol)						0.1	3.5	8.5	10.5						
Aniline Point (°C)				48.9	51.3	56.3	60.0	63.3	64.5			69.4	74.8	72.6	
Hydrogen (% wt)	12.8	16.5	15.1	14.0	13.8	13.1	12.9	12.6	12.2			11.8	11.6	11.7	
Total Wax (% wt)	3.8									1.5		3.9	0.3	0.0	0.0
C7 Asphaltenes (% wt)	0.1										0.1		0.0	0.0	0.4
Micro Carbon Residue (% wt)	3.2										7.2		0.3	2.5	21.1
Vanadium (ppm)	3.9										8.9		0.0	0.0	27.6
Nickel (ppm)	16.6										38.1		0.0	0.0	117.8
Iron (ppm)	8.5										19.4		0.0	0.0	60.0
Sodium (ppm)	1.5														
Mercury (ppb)	1.0														
Arsenic (ppb)	134														

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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				2.9	3.4	3.8	4.7	5.7	6.9	8.1
100	9.5	10.9	12.4	14.0	15.6	17.1	18.7	20.2	21.9	23.5
200	25.2	27.0	28.9	30.8	32.8	34.8	36.9	39.1	41.3	43.5
300	45.7	47.9	50.1	52.3	54.4	56.5	58.6	60.6	62.6	64.5
400	66.4	68.3	70.0	71.7	73.4	75.0	76.6	78.1	79.5	80.9
500	82.2	83.5	84.7	85.8	86.8	87.8	88.7	89.6	90.5	91.2