TotalEnergies	Crude **BONGA** Country Nigeria	TBP DISTILLATION

Density at 15°C, kg/m3	879.0
°API	29.4
Bbl/mt	7.168
Acidity, mg KOH/g	0.46
Sulphur, wt%	0.248
Hydrogen Sulphide, mg/kg	0
Mercaptan Sulphur, mg/kg	1
Viscosity, cSt at 10 °C	14.8
50 °C	4.7
Pour Point, °C	-24
Total Nitrogen, wt%	0.121
Wax, wt%	-
Wax Appearance Temperature, °C	-
RVP at 37.8 °C, kPa	26
Water, vol%	-
NaCl, mg/kg	-
Nickel, mg/kg	3.4
Vanadium, mg/kg	0.4
Iron, mg/kg	-
Mercury, µg/kg	-

Assay Date		27-Oct-15
	wt%	vol%
Ethane	0.01	0.01
Propane	0.10	0.18
Iso-Butane	0.12	0.18
n-Butane	0.36	0.54

°C	wt%	vol%	°C	wt%	vol%
080	3.90	5.22	460	81.49	83.30
090	4.89	6.41	480	84.37	85.94
100	6.08	7.80	500	86.89	88.24
120	8.89	11.01	520	89.08	90.23
140	11.94	14.42	540	90.96	91.94
160	14.93	17.68	560	92.56	93.40
180	17.96	20.92	580	93.93	94.63
200	21.34	24.49			
220	25.27	28.59			
240	29.76	33.20			
260	34.70	38.23			
280	39.96	43.54			
300	45.38	48.95			
320	50.82	54.30			
340	56.15	59.48			
360	61.25	64.38			
380	66.06	68.94			
400	70.51	73.12			
420	74.57	76.91			
440	78.23	80.30			

PROPERTIES OF TBP CUTS

LIGHT NAPHTHA	Cuts °C	Yield wt%	Yield vol %	Den 15°C kg/m3	S wt%	RSH mg/kg	RON clear	MON clear			Napht. vol%	Aro. vol%	RVP kPa			
	15-65	2.15	2.88	654	0.0006	0	80.1	79.0			14.0	0.0	-			
	15-80	3.31	4.30	673	0.0009	0	78.3	76.8			24.8	0.5	-			
HEAVY NAPHTHA	Cuts °C	Yield wt%	Yield vol %	Den 15°C kg/m3	S wt%	RSH mg/kg					Napht. vol%	Aro. vol%				
	80-150	9.55	10.85	771	0.0071	0					62.7	11.3				
	80-175	13.28	14.88	782	0.0112	0					61.3	14.1				
	100-150	7.37	8.27	780	0.0084	0					63.9	13.3				
KEROSENE	Cuts °C	Yield wt%	Yield vol %	Den 15°C kg/m3	S wt%	RSH mg/kg	Smoke Pt mm	Acidity mgKOH/g	Cetane Index	Freez. Pt °C		Aro. vol%	Visc cSt 50°C			Flash Point
	150-230	14.00	14.77	830	0.044	1	20	0.13	29.7	-62		26.6	1.1			57.9
	175-230	10.27	10.74	837	0.052	2	20	0.14	30.4	-58		28.5	1.2			70.3
	150-250	18.73	19.61	836	0.057	1	20	0.15	32.0	-57		27.4	1.2			61.8
GASOIL	Cuts °C	Yield wt%	Yield vol %	Den 15°C kg/m3	S wt%		Anilin Point °C		Cetane Index	Cloud Pt C	CFPP C	Pour Pt C	Visc cSt 50°C	Visc cSt 100°C	UOPK	Flash Point
	175-400	53.33	53.03	880	0.193		61		40.3	-11	-16	-21	3.9	1.6	11.4	86.0
	230-400	43.06	42.29	891	0.227		64		41.9	-9	-11	-13	5.6	2.0	11.4	107.0
	230-375	37.44	37.01	886	0.213		63		41.8	-15	-17	-19	4.5	1.8	11.4	105.4
VACUUM DISTILLATE	Cuts °C	Yield wt%	Yield vol %	Den 15°C kg/m3	S wt%	Conrad. wt%	Anilin Point °C	Ni mg/kg	Va mg/kg	Total N wt%	Bas N mg/kg	Pour Pt C	Visc cSt 100°C	Visc cSt 150°C	UOPK	Asp C7 wt %
	375-550	26.90	24.86	947	0.38	0.5	77	0	0	0.200	492	34	16.3	4.5	11.5	0.0
	375-565	28.04	25.89	948	0.38	0.6	77	0	0	0.209	509	35	17.3	4.7	11.5	0.0
	375-580	29.04	26.80	949	0.39	0.8	77	1	0	0.219	526	36	18.4	4.9	11.5	0.0
	400-580	23.41	21.51	953	0.41	1.0	79	1	0	0.250	633	40	24.9	6.0	11.6	0.0
RESIDUE	Cuts °C	Yield wt%	Yield vol %	Den 15°C kg/m3	S wt%	Conrad. wt%	Acidity mgKOH/g	Ni mg/kg	Va mg/kg	Total N wt%		Pour Pt C	Visc cSt 100°C	Visc cSt 150°C	Pene mm/10	Asp C7 wt%
	> 375	35.11	32.16	956	0.46	4.1	0.8	10	1	0.326		7	35	8	-	0.1
	> 550	8.21	7.30	985	0.74	16.1	0.5	40	5	0.739		44	1940	113	211	0.2
	> 565	7.08	6.27	988	0.77	17.9	0.4	46	5	0.789		46	3430	164	165	0.3
	> 580	6.08	5.37	992	0.80	19.9	0.4	52	6	0.840		48	6420	245	137	0.3

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