TotalEnergies	Crude **DUMBARTON** Country United Kingdom	TBP DISTILLATION

Density at 15°C, kg/m3	823.9
°API	40.2
Bbl/mt	7.648
Acidity, mg KOH/g	<0.05
Sulphur, wt%	0.282
Hydrogen Sulphide, mg/kg	0
Mercaptan Sulphur, mg/kg	4
Viscosity, cSt at 10 °C	5.8
50 °C	2.6
Pour Point, °C	-36
Total Nitrogen, wt%	0.059
Wax, wt%	-
Wax Appearance Temperature, °C	-
RVP at 37.8 °C, kPa	50
Water, vol%	-
NaCl, mg/kg	-
Nickel, mg/kg	0.6
Vanadium, mg/kg	1.2
Iron, mg/kg	0.5
Mercury, µg/kg	-

Assay Date	23-Jul-15	
	wt%	vol%
Ethane	0.01	0.02
Propane	0.37	0.59
Iso-Butane	0.34	0.49
n-Butane	1.33	1.86

°C	wt%	vol%	°C	wt%	vol%
080	9.5	12.3	460	82.1	84.6
090	11.0	14.0	480	84.4	86.7
100	12.8	15.9	500	86.5	88.5
120	16.7	20.3	520	88.3	90.2
140	21.3	25.3	540	89.9	91.6
160	26.0	30.3	560	91.3	92.8
180	30.3	34.7	580	92.6	93.9
200	34.1	38.6			
220	37.9	42.5			
240	41.9	46.5			
260	46.0	50.6			
280	50.2	54.7			
300	54.4	58.8			
320	58.6	62.8			
340	62.6	66.6			
360	66.5	70.3			
380	70.1	73.7			
400	73.5	76.8			
420	76.7	79.7			
440	79.5	82.3			

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	5.6	7.1	649	0.00	0	74.0	73.2			7.1	0.9	-			
	15-80	7.5	9.3	662	0.00	0	71.9	71.1			12.2	2.5	-			
HEAVY NAPHTHA	Cuts °C	Yield wt%	Yield vol %	Den 15°C kg/m3	S wt%	RSH mg/kg					Napht. vol%	Aro. vol%				
	80-150	14.2	15.6	749	0.00	0					40.3	11.6				
	80-175	19.7	21.4	758	0.00	0					39.9	12.8				
	100-150	11.0	11.9	756	0.00	0					41.6	12.1				
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	16.1	16.6	797	0.01	1	23	0.01	40.9	-61		18.5	1.0			55.1
	175-230	10.6	10.8	805	0.02	1	23	0.02	42.9	-54		19.7	1.1			69.0
	150-250	20.2	20.7	802	0.02	1	23	0.02	42.8	-55		19.1	1.1			58.0
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	44.3	43.2	843	0.21		70		51.2	-4	-7	-11	2.6	1.3	11.9	81.2
	230-400	33.7	32.3	856	0.27		74		54.6	0	0	-1	3.7	1.6	11.9	106.2
	230-375	29.4	28.4	852	0.24		72		54.5	-5	-6	-6	3.3	1.5	11.9	104.6
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	21.4	19.4	906	0.53	0.2	94	0	0	0.11	269	42	7.3	2.9	12.0	0.0
	375-565	22.4	20.3	907	0.54	0.3	94	0	0	0.12	283	42	7.7	3.1	12.0	0.0
	375-580	23.3	21.1	909	0.55	0.4	95	0	0	0.13	296	43	8.0	3.2	12.1	0.0
	400-580	19.0	17.1	914	0.56	0.4	96	0	0	0.14	339	46	9.9	3.7	12.1	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	30.7	27.2	930	0.68	4.2	0.0	2	4	0.19		43	16	5	-	0.9
	> 550	9.4	7.8	989	1.04	13.4	0.1	6	13	0.35		53	271	37	246	3.1
	> 565	8.4	6.9	995	1.07	14.7	0.1	7	15	0.36		54	385	46	188	3.4
	> 580	7.4	6.1	1001	1.11	16.2	0.1	7	16	0.37		55	566	60	147	3.8

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