TotalEnergies

Crude **ASGARD BLEND**

Country Norway

TBP DISTILLATION

Density at 15°C, kg/m3	785.8
°API	48.5
Bbl/mt	8.020
Acidity, mg KOH/g	0.04
Sulphur, wt%	0.18
Hydrogen Sulphide, mg/kg	5
Mercaptan Sulphur, mg/kg	0
Viscosity, cSt at 10 °C	2.0
50 °C	1.1
Pour Point, °C	-36
Total Nitrogen, wt%	0.03
Wax, wt%	-
Wax Appearance Temperature, °C	-
RVP at 37.8 °C, kPa	76
Water, vol%	-
NaCl, mg/kg	-
Nickel, mg/kg	0.2
Vanadium, mg/kg	2.9
Iron, mg/kg	-
Mercury, µg/kg	-

Assay Date 29-Aug-19

	wt%	vol%
Ethane	0.0	0.1
Propane	0.5	0.8
Iso-Butane	0.9	1.2
n-Butane	3.1	4.1

°C	wt%	vol%	°C	wt%	vol%
080	18.3	22.4	460	88.4	90.5
090	22.4	26.8	480	89.9	91.8
100	27.2	31.9	500	91.2	93.0
120	33.9	38.8	520	92.5	94.0
140	40.1	45.1	540	93.6	95.0
160	46.4	51.4	560	94.6	95.8
180	50.9	55.8	580	95.5	96.6
200	54.4	59.3			
220	58.1	62.9			
240	61.8	66.4			
260	65.4	69.8			
280	68.8	73.0			
300	71.9	75.8			
320	74.7	78.4			
340	77.2	80.6			
360	79.4	82.6			
380	81.5	84.5			
400	83.4	86.1			
420	85.1	87.7			
440	86.8	89.2			

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	9.5	11.5	646	0.00	0	75.9	75.1			3.3	0.0	-			
	15-80	13.8	16.2	664	0.00	0	72.1	71.2			9.6	0.4	-			
HEAVY NAPHTHA	Cuts °C	Yield wt%	Yield vol %	Den 15°C kg/m3	S wt%	RSH mg/kg					Napht. vol%	Aro. vol%				
	80-150	25.1	26.0	753	0.00	1					35.9	16.2				
	80-175	31.6	32.5	759	0.00	1					35.1	17.2				
	100-150	16.2	16.5	764	0.00	1					35.6	21.4				
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	16.6	16.3	796	0.00	1	22	0.02	39.9	-53		20.5	1.0			53.4
	175-230	10.0	9.8	804	0.01	1	21	0.02	43.4	-47		19.8	1.1			69.0
	150-250	20.3	19.8	801	0.01	1	21	0.02	42.0	-49		20.8	1.0			56.1
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	33.5	31.2	836	0.15		70		50.5	-13	-16	-19	2.3	1.2	11.9	85.4
	230-400	23.4	21.5	851	0.21		75		54.7	-7	-8	-8	3.5	1.6	11.9	103.5
	230-375	21.0	19.4	847	0.19		73		54.5	-12	-13	-13	3.1	1.4	11.9	102.3
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	13.2	11.4	902	0.56	0.2	94	0	0	0.09	208	37	7.3	2.9	12.1	0.0
	375-565	13.9	12.0	904	0.58	0.3	95	0	1	0.09	222	38	7.7	3.0	12.1	0.0
	375-580	14.6	12.5	907	0.59	0.4	95	0	1	0.10	236	39	8.2	3.1	12.1	0.0
	400-580	12.2	10.4	911	0.62	0.5	96	0	1	0.11	261	41	9.7	3.6	12.1	0.1
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	19.0	16.0	929	0.74	4.6	0.0	1	15	0.17		35	16	5	-	1.3
	> 550	5.9	4.6	996	1.15	14.5	0.0	4	48	0.37		16	298	40	2450	4.1
	> 565	5.1	4.0	1004	1.20	16.3	0.0	5	54	0.39		14	464	54	2190	4.7
	> 580	4.5	3.4	1012	1.24	18.2	0.0	5	61	0.41		13	759	75	1980	5.3