TotalEnergies

Crude **AL SHAHEEN**

Country Qatar

TBP DISTILLATION

Density at 15°C, kg/m3	881.3
°API	29.0
Bbl/mt	7.149
Acidity, mg KOH/g	0.13
Sulphur, wt%	2.3
Hydrogen Sulphide, mg/kg	<1
Mercaptan Sulphur, mg/kg	249
Viscosity, cSt at 10 °C	36.5
50 °C	7.9
Pour Point, °C	-21
Total Nitrogen, wt%	0.094
Wax, wt%	-
Wax Appearance Temperature, °C	-
RVP at 37.8 °C, kPa	25
Water, vol%	-
NaCl, mg/kg	-
Nickel, mg/kg	8.9
Vanadium, mg/kg	28.7
Iron, mg/kg	-

Assay Date 25-Feb-16

	wt%	vol%
Ethane	0.02	0.04
Propane	0.35	0.61
Iso-Butane	0.32	0.49
n-Butane	1.01	1.52

°C	wt%	vol%	°C	wt%	vol%
080	5.4	7.7	460	63.9	68.3
090	6.1	8.6	480	66.8	71.1
100	6.9	9.5	500	69.5	73.6
120	8.8	11.8	520	72.0	75.9
140	11.0	14.3	540	74.4	78.1
160	13.3	17.0	560	76.7	80.2
180	15.8	19.8	580	78.8	82.1
200	18.5	22.7			
220	21.4	25.8			
240	24.5	29.1			
260	27.8	32.7			
280	31.4	36.4			
300	35.2	40.2			
320	39.1	44.1			
340	42.9	48.0			
360	46.8	51.8			
380	50.5	55.5			
400	54.1	59.0			
420	57.6	62.3			
440	60.8	65.4			

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	2.8	3.9	642	0.03	77	78.1	76.4			5.2	0.1	-			
	15-80	3.7	5.0	653	0.03	148	75.1	73.2			10.0	0.2	-			
HEAVY NAPHTHA	Cuts °C	Yield wt%	Yield vol %	Den 15°C kg/m3	S wt%	RSH mg/kg					Napht. vol%	Aro. vol%				
	80-150	6.7	8.0	739	0.07	339					37.0	4.7				
	80-175	9.8	11.4	752	0.10	338					35.4	9.9				
	100-150	5.2	6.1	747	0.08	328					37.8	6.2				
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	10.8	11.8	802	0.2	367	22	0.13	40.2	-67		17.3	1.0			57.2
	175-230	7.7	8.3	811	0.3	379	22	0.13	40.7	-61		15.3	1.1			69.7
	150-250	14.0	15.2	809	0.3	359	22	0.13	41.9	-60		16.3	1.1			60.6
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	39.0	39.9	857	1.3		66		48.0	-4	-8	-11	3.0	1.4	11.7	84.8
	230-400	31.3	31.6	870	1.6		69		50.1	-1	-2	-3	4.0	1.7	11.7	107.7
	230-375	26.7	27.2	864	1.4		68		50.2	-7	-7	-8	3.5	1.6	11.7	105.8
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	26.0	24.6	928	2.6	0.3	81	0	0	0.06	263	37	8.2	3.3	11.8	0.1
	375-565	27.6	26.1	931	2.7	0.4	81	0	1	0.07	280	38	8.8	3.4	11.8	0.1
	375-580	29.2	27.5	933	2.7	0.5	82	0	1	0.07	296	38	9.4	3.6	11.8	0.1
	400-580	24.6	23.1	938	2.8	0.6	83	0	1	0.08	328	41	11.6	4.2	11.8	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	50.4	45.4	975	3.7	9.9	0.1	18	57	0.2		3	51	12	-	4.3
	> 550	24.4	20.8	1031	4.9	20.2	0.1	36	117	0.3		48	1510	127	168	8.7
	> 565	22.8	19.3	1036	5.1	21.4	0.1	39	125	0.3		51	2240	166	125	9.3
	> 580	21.2	17.9	1041	5.2	22.8	0.1	41	134	0.3		54	3420	221	97	10.0