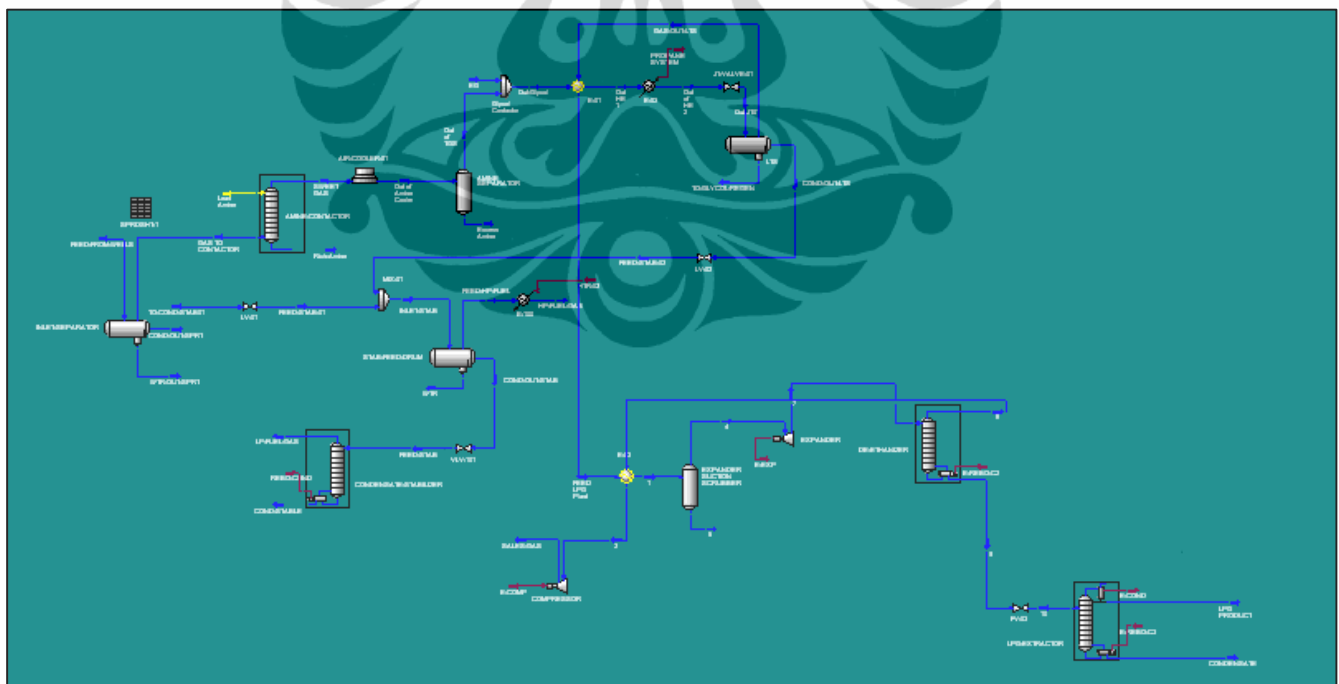


LAMPIRAN A: Hasil Simulasi HYSYS

Worksheet	Mole Fractions	
Conditions	Nitrogen	0,000983
Properties	CO2	0,051120
Composition	H2S	0,000012
K Value	Methane	0,830406
User Variables	Ethane	0,033523
Notes	Propane	0,009536
Cost Parameters	i-Butane	0,002851
	n-Butane	0,002851
	i-Pentane	0,001770
	n-Pentane	0,001180
	n-Hexane	0,018678
	n-Heptane	0,008258
	MDEAmine	0,000000
	H2O	0,038832
	Total	1,00000



LAMPIRAN – A (lanjutan)

LPG PRODUCT		
Temperature	154,5	F
Pressure	240,0	psia
Molar Flow	1,300	MMSCFD
Std Ideal Liq Vol Flow	942,2	barrel/day
Master Comp Mole Frac (Methane)	0,0000	
Master Comp Mole Frac (Ethane)	0,0101	
Master Comp Mole Frac (Propane)	0,5764	
Master Comp Mole Frac (i-Butane)	0,1448	
Master Comp Mole Frac (n-Butane)	0,1202	
Master Comp Mole Frac (i-Pentane)	0,0409	
Master Comp Mole Frac (n-Pentane)	0,0202	
Master Comp Mole Frac (n-Hexane)	0,0873	
Master Comp Mole Frac (n-Heptane)	0,0003	
Mass Flow	82,47	tonne/d

COND-STABLE		
Temperature	112,1	F
Pressure	80,00	psia
Std Ideal Liq Vol Flow	4964	barrel/day

LP-FUEL-GAS		
Temperature	-8,907	F
Pressure	75,00	psia
Molar Flow	1,500	MMSCFD

HP-FUEL-GAS		
Temperature	100,0	F
Pressure	395,0	psia
Molar Flow	3,267	MMSCFD

LAMPIRAN – A (lanjutan)

SALES-GAS		
Temperature	343,6	F
Pressure	1250	psia
Molar Flow	128,5	MMSCFD
Master Comp Mole Frac (Methane)	0,9356	
Master Comp Mole Frac (Ethane)	0,0336	
Master Comp Mole Frac (Propane)	0,0016	
Master Comp Mole Frac (CO2)	0,0280	
Master Comp Mole Frac (H2S)	0,0000	
Master Comp Mole Frac (H2O)	0,0000	
Lower Heating Value	3,450e+005	Btu/lbmole
Higher Heating Value	3,799e+005	Btu/lbmole
Mass Higher Heating Value	2,168e+004	Btu/lb

WTR-OUT-SPRT		
Temperature	125,0	F
Pressure	1210	psia
Molar Flow	5,480	MMSCFD
Std Ideal Liq Vol Flow	747,4	barrel/day

Pengembangan LPG..., I Nyoman Arya Sidi Mantra, FT UI, 2010

LAMPIRAN B : CAPEX LAPANGAN "X" (SUMATERA SELATAN)

TOTAL (GAS + CONDENSATE + LPG) **177,377,519** **210,846,129**

TOTAL (GAS + CONDENSATE) **137,556,807** **163,511,817**

NO	AREA	EQUIPMENT NAME	SIZE / CAPACITY (reference)	UNIT	UNIT COST (Year - 2006) (US\$)	Exponent	SIZE / CAPACITY (design)	ESTIMATE UNIT COST (Year - 2006)	TOTAL UNIT (ea)	COST (Year - 2006) (US\$)	COST (Year - 2013) (US\$) i: 2.5% per tahun (US\$)	REFERENCE
1	Well Site	Drilling & Well Head #01	50	mmscfd	6,000,000	0.60	50	6,000,000	1	6,000,000	7,132,115	DRILLING Cost Sumur KPS- A (AFE REPORT)
2	Well Site	Drilling & Well Head #02	50	mmscfd	6,000,000	0.60	50	6,000,000	1	6,000,000	7,132,115	DRILLING Cost Sumur KPS- A (AFE REPORT)
3	Well Site	Drilling & Well Head #03	50	mmscfd	6,000,000	0.60	50	6,000,000	1	6,000,000	7,132,115	DRILLING Cost Sumur KPS- A (AFE REPORT)
4	Well Site	Drilling & Well Head #04	50	mmscfd	6,000,000	0.60	50	6,000,000	1	6,000,000	7,132,115	DRILLING Cost Sumur KPS- A (AFE REPORT)
5	Well Site	Flowline Well#1	8	inch	521,553	0.60	8	521,553	1	521,553	619,963	GAS PLANT (KPS-A) EPC CONTRACT
6	Well Site	Flowline Well#2	8	inch	521,553	0.60	8	521,553	1	521,553	619,963	GAS PLANT (KPS-A) EPC CONTRACT
7	Well Site	Flowline Well#3	8	inch	521,553	0.60	8	521,553	1	521,553	619,963	GAS PLANT (KPS-A) EPC CONTRACT
8	Well Site	Flowline Well#4	8	inch	521,553	0.60	8	521,553	1	521,553	619,963	GAS PLANT (KPS-A) EPC CONTRACT
9	Well Site	Cathodic Protection	1	ea	94,066	0.60	2	142,577	1	142,577	169,480	GAS PLANT (KPS-A) EPC CONTRACT
10	Well Site	Pig Launcher & Receiver Water Injection Well	1	set	1,230,000	0.60	1	1,230,000	1	1,230,000	1,462,083	GAS PLANT (KPS-A) EPC CONTRACT
11	Well Site	Control & Chemical Injection Well#01	1	set	354,706	0.60	1	354,706	1	354,706	421,634	GAS PLANT (KPS-A) EPC CONTRACT
12	Well Site	Control & Chemical Injection Well#02	1	set	354,706	0.60	1	354,706	1	354,706	421,634	GAS PLANT (KPS-A) EPC CONTRACT
13	Well Site	Control & Chemical Injection Well#03	1	set	354,706	0.60	1	354,706	1	354,706	421,634	GAS PLANT (KPS-A) EPC CONTRACT
14	Well Site	Control & Chemical Injection Well#04	1	set	354,706	0.60	1	354,706	1	354,706	421,634	GAS PLANT (KPS-A) EPC CONTRACT
	Overall Well Site	Pipe Fittings, Civil & Safety							5%	1,443,881	1,716,320	GAS PLANT (KPS-A) EPC CONTRACT
15	Gas Process	Inlet Separator	200	mmscfd	259,400	0.50	150	224,647	1	224,647	267,035	GAS PLANT (KPS-A) EPC CONTRACT
16	Gas Process	Amine Contactor	150	mmscfd	307,588	0.50	150	307,588	1	307,588	365,625	GAS PLANT (KPS-A) EPC CONTRACT
17	Gas Process	Anil Foam System (HP & LP)	1	set	137,428	0.60	1	137,428	1	137,428	163,359	GAS PLANT (KPS-A) EPC CONTRACT
18	Gas Process	Treated Gas Cooler	150	mmscfd	19,083	0.66	150	19,083	1	19,083	22,684	GAS PLANT (KPS-A) EPC CONTRACT
19	Gas Process	Amine Separator	150	mmscfd	82,955	0.50	150	82,955	1	82,955	98,607	GAS PLANT (KPS-A) EPC CONTRACT
20	Gas Process	Glycol Contactor	200	mmscfd	250,000	0.60	150	210,367	1	210,367	250,060	GAS PLANT (KPS-A) EPC CONTRACT
21	Gas Process	HE-01 (Gas to Gas Exchanger)	200	mmscfd	290,282	0.62	150	242,861	1	242,861	288,686	GAS PLANT (KPS-A) EPC CONTRACT
22	Gas Process	HE-02 (Gas Chiller)	150	mmscfd	68,217	0.53	150	68,217	1	68,217	81,089	GAS PLANT (KPS-A) EPC CONTRACT
23	Gas Process	JT Valve	200	mmscfd	40,500	0.60	150	34,079	1	34,079	40,510	GAS PLANT (KPS-A) EPC CONTRACT
24	Gas Process	LTS (Low Temperature Separator)	200	mmscfd	151,442	0.50	150	131,153	1	131,153	155,899	GAS PLANT (KPS-A) EPC CONTRACT
25	Dehydration (Glycol)	Glycol Regeneration Package	200	mmscfd	782,684	0.60	150	658,602	1	658,602	782,871	GAS PLANT (KPS-A) EPC CONTRACT
26	Sweetening (Amine)	Amine Regenerator	1,200	gpm	392,218	0.60	1,000	351,576	1	351,576	417,913	GAS PLANT (KPS-A) EPC CONTRACT
27	Sweetening (Amine)	Lean / Rich Amine Exchanger	1,200	gpm	190,930	0.62	1,000	170,523	2	341,045	405,395	GAS PLANT (KPS-A) EPC CONTRACT
28	Sweetening (Amine)	Amine Booster Pump	1,200	gpm	29,619	0.67	1,000	26,213	2	52,426	62,318	GAS PLANT (KPS-A) EPC CONTRACT
	Sweetening (Amine)	Amine Charge Pump	1,200	gpm	313,467	0.67	1,000	277,422	2	554,843	659,534	GAS PLANT (KPS-A) EPC CONTRACT
29	Sweetening (Amine)	Amine Flash Tank	1,200	gpm	52,386	0.50	1,000	47,822	1	47,822	56,845	GAS PLANT (KPS-A) EPC CONTRACT
30	Sweetening (Amine)	Amine Surge Tank	2,400	gpm	46,565	0.50	1,000	30,058	1	30,058	35,729	GAS PLANT (KPS-A) EPC CONTRACT
31	Sweetening (Amine)	Amine Coolers	2,400	gpm	306,986	0.66	1,000	172,258	1	172,258	204,761	GAS PLANT (KPS-A) EPC CONTRACT
32	Sweetening (Amine)	Amine Heat Medium Heater	1,200	gpm	1,333,926	0.72	1,000	1,169,826	1	1,169,826	1,390,555	GAS PLANT (KPS-A) EPC CONTRACT
33	Sweetening (Amine)	Amine Heat Medium Pump	1,200	gpm	53,885	0.67	1,000	47,689	3	143,066	170,061	GAS PLANT (KPS-A) EPC CONTRACT
34	Sweetening (Amine)	Thermal Oxidizer	2,400	gpm	441,768	0.72	1,000	235,203	1	235,203	279,582	GAS PLANT (KPS-A) EPC CONTRACT
35	Condensate Processing	Stabilizer Feed Drum	6,000	bpd	33,157	0.50	4,964	30,159	1	30,159	35,849	GAS PLANT (KPS-A) EPC CONTRACT
36	Condensate Processing	Stabilizer Column	6,000	bpd	117,481	0.60	4,964	104,852	1	104,852	124,636	GAS PLANT (KPS-A) EPC CONTRACT
37	Condensate Processing	Stabilizer Reboiler	6,000	bpd	22,703	0.53	4,964	20,533	2	41,066	48,815	GAS PLANT (KPS-A) EPC CONTRACT
38	Condensate Processing	Stabilizer After Cooler	6,000	bpd	74,216	0.66	4,964	65,489	1	65,489	77,846	GAS PLANT (KPS-A) EPC CONTRACT
39	Condensate Processing	Condensate Storage Tank	30,000	bbi	266,653	0.50	30,000	266,653	1	266,653	316,967	GAS PLANT (KPS-A) EPC CONTRACT
40	Condensate Processing	Condensate Shipping Pump	2,500	bpd	69,722	0.67	3,000	78,781	3	236,343	280,937	GAS PLANT (KPS-A) EPC CONTRACT
41	Condensate Processing	Condensate Metering	12,000	bpd	2,111	0.60	4,694	1,202	1	1,202	1,429	GAS PLANT (KPS-A) EPC CONTRACT
42	Propane Refrigerant	Refrigeration Package	700	mmscfd	3,987,510	0.60	150	1,582,332	1	1,582,332	1,880,896	GAS PLANT (KPS-A) EPC CONTRACT
43	Propane Refrigerant	Depropanizer Package	15	gpm	346,849	0.60	15	346,849	1	346,849	412,294	GAS PLANT (KPS-A) EPC CONTRACT
44	Sales Gas Compressor	Suction Scrubber Vessel	300	mmscfd	193,980	0.50	150	137,165	2	274,329	326,091	GAS PLANT (KPS-A) EPC CONTRACT
45	Sales Gas Compressor	Compressor Package & Filters - Existing: 1850 HP - Without LPG: 1804 HP	300	mmscfd	3,993,620	0.60	150	2,595,300	2	5,190,600	6,169,992	GAS PLANT (KPS-A) EPC CONTRACT
46	Sales Gas Compressor	After Cooler	300	mmscfd	102,840	0.66	150	65,085	2	130,170	154,731	GAS PLANT (KPS-A) EPC CONTRACT
47	Power Generation	GTG Package	5.5	MW	4,689,139	0.60	5.5	4,689,139	2	9,378,278	11,147,825	GAS PLANT (KPS-A) EPC CONTRACT
48	Power Generation	PCR (Power Control Room)	17	MW	5,192,521	0.60	12	4,213,254	1	4,213,254	5,008,235	GAS PLANT (KPS-A) EPC CONTRACT
49	Power Generation	Lightening Protection	1	set	954,965	0.60	1	954,965	1	954,965	1,135,153	GAS PLANT (KPS-A) EPC CONTRACT
50	Power Generation	Emergency Diesel Generator	1	MW	513,797	0.60	1	513,797	1	513,797	610,743	GAS PLANT (KPS-A) EPC CONTRACT
51	Control Room	DCS Control System	1	set	1,070,162	0.60	1	1,070,162	1	1,070,162	1,272,086	GAS PLANT (KPS-A) EPC CONTRACT
52	Flare System	Flare Package	400	mmscfd	238,149	0.60	150	132,211	1	132,211	157,157	GAS PLANT (KPS-A) EPC CONTRACT
53	Air Instrument	Air Instrument Package	1	set	136,775	0.75	1	136,775	2	273,549	325,164	GAS PLANT (KPS-A) EPC CONTRACT
54	Fuel Gas	HP & LP Fuel Gas	1	set	19,320	0.60	1	19,320	1	19,320	22,965	GAS PLANT (KPS-A) EPC CONTRACT
55	Water Treatment	Water Treatment Package & Tanks	1	set	386,064	0.60	1	386,064	1	386,064	458,909	GAS PLANT (KPS-A) EPC CONTRACT
56	Produced Water	Filter & Pumps	1,829	bpd	76,766	0.67	1,000	51,225	2	102,451	121,782	GAS PLANT (KPS-A) EPC CONTRACT
57	Produced Water	Tanks	5,000	bbi	81,580	0.50	5,000	81,580	1	81,580	96,973	GAS PLANT (KPS-A) EPC CONTRACT
58	Produced Water	Wells	3,000	bpd	3,100,000	0.60	3,000	3,100,000	2	6,200,000	7,369,852	GAS PLANT (KPS-A) EPC CONTRACT
59	Produced Water	Flowline	6	inch	750,000	0.60	6	750,000	2	1,500,000	1,783,029	GAS PLANT (KPS-A) EPC CONTRACT
60	Overall Gas Plant	Pipe Fittings, Instrumentation, Civil & Safety							20%	7,662,155	9,107,895	GAS PLANT (KPS-A) EPC CONTRACT
61	Trunkline	Gas Sales (D: 26 in, L: 100 km, P: 1500 Psig)	26	inch / km	300,386	0.60	26	300,386	100	30,038,570	35,706,421	GAS PLANT (KPS-A) EPC CONTRACT
62	Trunkline	Condensate (D: 6 in, L: 100 km, rating:ANSI-300)	6	inch / km	87,774	0.60	6	87,774	100	8,777,386	10,433,554	GAS PLANT (KPS-A) EPC CONTRACT
63	Trunkline	Cathodic Protection	1	set	61,897	0.60	1	61,897	1	61,897	73,576	GAS PLANT (KPS-A) EPC CONTRACT

Pengembangan LPG..., I Nyoman Arya Sidi Mantra, FT UL, 2010

LAMPIRAN B : CAPEX LAPANGAN "X" (SUMATERA SELATAN)

TOTAL (GAS + CONDENSATE + LPG) **177,377,519** **210,846,129**

TOTAL (GAS + CONDENSATE) **137,556,807** **163,511,817**

NO	AREA	EQUIPMENT NAME	SIZE / CAPACITY (reference)	UNIT	UNIT COST (Year - 2006) (US\$)	Exponent	SIZE / CAPACITY (design)	ESTIMATE UNIT COST (Year - 2006)	TOTAL UNIT (ea)	COST (Year - 2006) (US\$)	COST (Year - 2013) i: 2.5% per tahun (US\$)	REFERENCE
64	Receiving Facility	Gas Sales Metering	400	mmscfd	1,309,719	0.60	300	1,102,084	1	1,102,084	1,310,032	GAS PLANT (KPS-A) EPC CONTRACT
65	Receiving Facility	Condensate Metering	12,000	bpd	2,111	0.60	4,694	1,202	1	1,202	1,429	GAS PLANT (KPS-A) EPC CONTRACT
66	Receiving Facility	Filters	400	mmscfd	65,633	0.58	300	55,547	2	111,093	132,055	GAS PLANT (KPS-A) EPC CONTRACT
67	Receiving Facility	Tie-in Works (Gas & Condensate Trunkline)	1	set	167,379	0.60	1	167,379	2	334,758	397,922	GAS PLANT (KPS-A) EPC CONTRACT
68	Overall Trunkline & Receiving Facility								10%	154,914	184,144	GAS PLANT (KPS-A) EPC CONTRACT
69	Offsite Facility (Building)	Living Quarter / Camp Diesel Fuel Station Administration Offices Workshop Fencing Warehouse	1	set	8,175,311	0.60	1	8,175,311	1	8,175,311	9,717,876	GAS PLANT (KPS-A) EPC CONTRACT
70	Project Management	Provisional Price - Admin Building - Camp - Warehouse (2 Years Spare) - Workshop - Overhead Cost							10%	12,505,164	14,864,711	GAS PLANT (KPS-A) EPC CONTRACT
											0	
NO	AREA	EQUIPMENT NAME	SIZE / CAPACITY (reference)	UNIT	UNIT COST (Year - 2003) (US\$)	Exponent	SIZE / CAPACITY (design)	ESTIMATE UNIT COST (Year - 2003)	TOTAL UNIT (ea)	TOTAL COST (Year - 2006) (US\$)	COST (Year - 2013) i: 2.5% per tahun (US\$)	REFERENCE
71	LPG	Gas to Gas Exchanger (COLD BOX)	24,470,000	btu/hr	290,282	0.62	31,240,000	337,744	1	337,744	401,472	GAS PLANT (KPS-A) EPC CONTRACT
72	LPG	Expander Suction Scrubber	10	mmscfd	50,000	0.50	150	193,649	1	193,649	230,188	LPG PLANT GRESEK 1 (KODECO - MKS)
73	LPG	Expander Package - Existing: 1850 HP - New: 1899 HP	300	mmscfd	3,993,620	0.60	150	2,676,459	1	2,676,459	3,181,469	LPG PLANT GRESEK 1 (KODECO - MKS)
74	LPG	De-Ethanizer Column	40	mmscfd	325,000	0.60	150	718,294	1	718,294	853,826	LPG PLANT GRESEK 1 (KODECO - MKS)
75	LPG	De-Ethanizer Reboiler - Condensate: P-80, 1150 HP - De Ethanizer: P-370, 2228 HP	1,150	HP	22,703	0.53	2,228	80,793	1	80,793	96,038	SUBAN GAS PLANT (COPI)
76	LPG	LPG Column	3	mmscfd	235,000	0.60	3	235,000	1	235,000	279,341	LPG PLANT GRESEK 1 (KODECO - MKS)
77	LPG	LPG Reboiler - Condensate: P-80, 1150 HP - LPG: P-250, 569 HP	1,150	HP	22,703	0.53	569	30,977	1	30,977	36,821	SUBAN GAS PLANT (COPI)
78	LPG	LPG Storage Tank	50	ton/day	1,500,000	0.50	82	1,920,937	2	3,841,875	4,566,782	LPG PLANT GRESEK 1 (KODECO - MKS)
79	LPG	LPG Transfer Pump	50	ton/day	45,000	0.67	82	62,684	2	125,368	149,024	LPG PLANT GRESEK 1 (KODECO - MKS)
80	Sales Gas	Upgrade Sales Gas Compressor - With LPG : 11580 HP - Without LPG : 1804 HP	300	mmscfd	3,993,620	0.60	150	7,919,008	2	10,647,416	12,656,432	SUBAN GAS PLANT (COPI)
81	Offsite	Repair Road - 100 km	1	KM	181,000	0.60	1	181,000	100	18,100,000	21,515,212	CIVIL ITB - Land Transportation Dept.
82	Overall LPG Plant	Pipe Fittings, Instrumentation, Civil & Safety							15%	2,833,136	3,367,709	

Pengembangan LPG..., I Nyoman Arya Sidi Mantra, FT UI, 2010.

PRODUCT: GAS + CONDENSATE + LPG

NO	ITEM	TYPE	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
1	Personal Development - 250 orang - Training Cost: US\$ 5000 / orang / tahun	Routine	0	0	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000	
2	Biaya FEL - FEL 1 dan 2 - FEL 3	Routine	3,000,000	2,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3	Man Power - 250 orang - Gaj: US\$ 1500 / orang / bulan	Routine	0	0	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	5,250,000	
4	Well Services & Exploration - Gas Well: 4 x US\$ 900,000 / tahun - Water Well: 2 x US\$ 200,000 / tahun - Contract Services: US\$ 500,000 / tahun - Acidizing: US\$ 1,500,000 / 3 tahun - Re tubing: US\$ 2,000,000 / 3 tahun	Routine	0	0	2,900,000	2,900,000	6,400,000	6,400,000	6,400,000	6,400,000	6,400,000	6,400,000	6,400,000	6,400,000	6,400,000	6,400,000	6,400,000	6,400,000	6,400,000	6,400,000	6,400,000	6,400,000	6,400,000	6,400,000	
5	Lapdik (akomodasi, transportasi) - Cost: US\$ 50 / orang / hari	Routine	0	0	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	4,562,500	
6	Vendor & Engineering Assistance - Turbomachinery: US\$ 200,000 / tahun - Electrical: US\$ 100,000 / tahun - Instrumentation: US\$ 100,000 / tahun - Mechanical: US\$ 100,000 / tahun - Process: US\$ 100,000 / tahun	Routine	0	0	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	600,000	
7	Biaya Chemical - Amine & Axi Foam: US\$ 600,000 / tahun - Corrosion Inhibitor + Biocide: US\$ 250,000 / tahun - Glycol: US\$ 250,000 / tahun - Water Treatment: US\$ 100,000 / tahun	Routine	0	0	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	
8	Biaya Transportasi - Gas: US\$ 0.69 / m ³ - Condensate: US\$ 1.5 / bbl / hari (biaya bargaining)	Routine	0	0	35,533,845	35,533,845	35,533,845	35,533,845	35,533,845	35,533,845	35,533,845	35,533,845	35,533,845	35,533,845	35,533,845	35,533,845	30,778,808	30,778,808	28,398,825	28,398,825	23,716,605	23,716,605	19,049,168	11,980,505	7,222,073
9	Biaya Preventive Maintenance (PM) - Turbomachinery - GTG - Sales Gas Compressor - Expander - Propane Compressor - Air Compressor - Main Pumps - Inlet Compression (start: 2018)	Routine	0	0	450,000	450,000	450,000	450,000	450,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	
10	Diesel Fuel	Routine	0	0	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	
11	Operating Material & Tools - Electrical: US\$ 150,000 / tahun - Instrumentation: US\$ 150,000 / tahun - Operation: US\$ 200,000 / tahun	Routine	0	0	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	
12	Pipeline Maintenance & Civil Work - Piling: US\$ 100,000 / tahun - Cathodic Survey: US\$ 50,000 / tahun - Coating Survey: US\$ 50,000 / tahun - NDT: US\$ 50,000 / tahun	Routine	0	0	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	
13	Abandon Cost	Routine	0	0	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	900,000	
14	Engine Exchange - GTG A	Non - Routine	0	0	0	0	0	1,600,000	0	0	0	1,600,000	0	0	0	1,600,000	0	0	0	1,600,000	0	0	0	1,600,000	
15	Engine Exchange - GTG B	Non - Routine	0	0	0	0	0	0	1,600,000	0	0	0	1,600,000	0	0	0	1,600,000	0	0	0	1,600,000	0	0	0	
16	Engine Exchange - Sales Gas Compressor A	Non - Routine	0	0	0	0	700,000	0	0	0	700,000	0	0	0	0	700,000	0	0	0	700,000	0	0	0	700,000	
17	Engine Exchange - Sales Gas Compressor B	Non - Routine	0	0	0	0	0	700,000	0	0	0	700,000	0	0	0	0	700,000	0	0	0	700,000	0	0	700,000	
18	Engine Exchange - Turbo Expander	Non - Routine	0	0	0	0	0	0	1,200,000	0	0	0	1,200,000	0	0	0	1,200,000	0	0	0	1,200,000	0	0	0	
19	Major Overhaul - Pumps	Non - Routine	0	0	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000		
20	Major Overhaul - Propane Compressor A	Non - Routine	0	0	0	250,000	0	0	0	250,000	0	0	0	250,000	0	0	0	250,000	0	0	0	250,000	0	0	
21	Major Overhaul - Propane Compressor B	Non - Routine	0	0	0	0	250,000	0	0	0	250,000	0	0	0	250,000	0	0	0	250,000	0	0	0	250,000	0	
22	Static Equipment Cleaning: - Heat Exchanger: US\$ 250,000 / ea / 2 tahun - Radiationation Column: US\$ 300,000 / ea / 5 tahun - Condensate Tank: US\$ 250,000 / ea / 3 tahun - LPG Storage Tank: US\$ 250,000 / ea / 3 tahun - Cooler: US\$ 50,000 / ea / tahun	Non - Routine	0	0	0	250,000	250,000	250,000	600,000	250,000	250,000	250,000	250,000	600,000	250,000	250,000	250,000	250,000	250,000	600,000	250,000	250,000	250,000	250,000	600,000
23	Intelligent Pilling: - Flowline Gas Wells: US\$ 250,000 / well / 5 tahun - Gas Trunkline: US\$ 250,000 / 5 tahun - Condensate Trunkline: US\$ 250,000 / 5 tahun	Non - Routine	0	0	0	0	0	500,000	500,000	250,000	250,000	500,000	500,000	500,000	250,000	250,000	500,000	500,000	500,000	500,000	250,000	250,000	500,000	500,000	250,000
24	Aktivitas tidak terduga: - Pompa Chemical: US\$ 50,000 / pompa - Kebocoran Pipa: US\$ 150,000 / tahun - Control System: US\$ 50,000 / tahun	Non - Routine	0	0	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	
25	Inlet Compression A Inlet Compression B	Non - Routine	0	0	0	0	0	0	0	0	0	1,600,000	0	1,600,000	0	1,600,000	0	1,600,000	0	1,600,000	0	1,600,000	0	1,600,000	
26	Overhead Cost (20% dari Biaya Total) - Head Office - Tax - Asuransi	Routine	0	0	10,837,269	10,937,269	11,777,269	12,147,269	12,077,269	12,017,269	11,917,269	12,507,269	12,097,269	12,457,269	11,917,269	11,556,262	11,146,262	10,966,265	10,610,265	10,143,821	9,683,821	9,090,334	7,256,601	6,914,915	
	TOTAL		3,000,000	2,000,000	66,023,614	66,823,614	70,663,614	72,863,614	72,463,614	72,103,614	71,503,614	76,343,614	72,563,614	74,743,614	71,503,614	68,337,568	66,877,568	66,761,500	63,661,500	60,862,500	58,102,500	54,542,000	43,539,600	41,489,400	

Pengembangan LPG..., I Nyoman Arya Sidi Mantra, FT UI, 2010.

LAMPIRAN - D: REVENUE LAPANGAN "X" (SUMATERA SELATAN) "i - 10% dan Pajak - 44%"

PRODUK : GAS + KONDENSAT

11

Product	Unit Cost		Unit Rate	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
	Min	Max																									
GAS UNTUK EXPORT																											
YEAR				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Gas Price (export)	9	12	US\$/mbtu																								
Gas Feed			mmscd				150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150		
Gas Production			mmscd				130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3		
Gas Production			mmbtu/d				Conversion mmscd to mbtu	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025		
Gas Revenue (min)			US\$/year	10%	2,856,591,933		329,629,142	299,662,856	272,420,778	247,655,253	225,141,139	204,673,763	186,067,057	169,151,870	153,774,427	139,794,934	127,086,304	99,927,624	90,843,295	76,136,310	69,214,827	52,445,569	47,677,790	34,734,816	19,778,916	10,775,263	
Gas Revenue (max)			US\$/year	10%	3,806,789,244		439,505,522	399,550,475	363,227,704	330,207,004	300,188,185	272,898,350	248,089,409	225,535,827	205,032,570	186,393,245	169,448,405	133,236,833	121,124,393	101,515,080	92,286,436	69,927,425	63,570,386	46,313,088	26,371,888	14,367,018	
GAS UNTUK DOMESTIK																											
YEAR				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Gas Price (domestic)	2	4	US\$/mbtu																								
Gas Production			mmscd				130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130		
Gas Production			mmbtu/d				Conversion mmscd to mbtu	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025	1.025		
Gas Revenue (min) NPV 10			US\$/year	10%	634,798,207		73,250,920	66,591,746	60,537,951	55,034,501	50,031,364	45,483,058	41,348,235	37,589,304	34,172,095	31,065,541	28,241,401	22,206,139	20,187,399	16,919,180	15,381,073	11,654,571	10,595,064	7,718,848	4,395,315	2,394,503	
Gas Revenue (max) NPV 10			US\$/year	10%	1,269,596,415		146,501,841	133,183,492	121,075,901	110,069,001	100,062,728	90,966,117	82,696,470	75,178,609	68,344,190	62,131,082	56,482,802	44,412,278	40,374,798	33,838,360	30,762,145	23,309,142	21,190,129	15,437,696	8,790,629	4,789,006	
KONDENSAT																											
YEAR				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Condensate Price	50	70	US\$/bbl																								
Condensate Production			bb/d				Ratio Gas to Condensate Ratio	33.09	4,964	4,964	4,964	4,964	4,964	4,964	4,964	4,964	4,964	4,375	4,375	4,076	4,076	3,482	3,482	2,869	1,886	1,208	
Condensate Revenue (min) NPV 10			US\$/year	10%	594,294,007		68,063,862	61,876,238	56,251,125	51,137,387	46,488,533	42,262,303	38,420,276	34,922,523	31,752,294	28,865,722	26,241,565	21,025,355	19,113,959	16,188,779	14,717,071	11,429,397	10,390,361	7,782,869	4,651,127	2,708,262	
Condensate Revenue (max) NPV 10			US\$/year	10%	832,011,609		95,289,406	86,626,733	78,751,576	71,592,341	65,083,947	59,167,224	53,788,386	48,989,533	44,453,211	40,412,010	36,738,191	29,435,497	26,759,543	22,664,290	20,603,900	16,001,155	14,546,505	10,896,016	6,511,577	3,791,567	
GAS UNTUK EXPORT																											
Total Revenue (min)			US\$/year	10%	3,450,885,940		397,693,003	361,539,094	328,671,904	298,792,640	271,629,672	246,936,066	224,487,333	204,079,393	185,526,721	168,660,656	153,327,869	120,952,979	109,957,254	92,325,088	83,931,899	63,874,965	58,068,150	42,517,685	24,430,043	13,483,526	
Total Revenue (max)			US\$/year	10%	4,640,800,853		534,794,929	486,177,208	441,979,280	401,799,345	365,272,132	332,065,575	301,877,795	274,434,359	249,485,781	226,805,256	206,186,596	162,672,329	147,883,936	124,179,370	112,890,336	85,928,580	78,116,891	57,209,105	32,883,466	18,158,585	
GAS UNTUK DOMESTIK																											
Total Revenue (min)			US\$/year	10%	1,229,092,214		141,314,782	128,467,984	116,789,076	106,171,887	96,519,898	87,745,361	79,768,510	72,516,828	65,924,389	59,931,263	54,482,966	43,231,494	39,301,358	33,107,959	30,098,144	23,083,967	20,985,425	15,501,717	9,046,441	5,102,765	
Total Revenue (max)			US\$/year	10%	2,101,608,024		241,791,247	219,810,225	199,827,477	181,661,343	165,146,675	150,133,341	136,484,856	124,077,141	112,797,401	102,543,092	93,220,993	73,847,774	67,134,340	56,502,650	51,366,045	39,310,297	35,736,633	26,333,713	15,302,207	8,580,573	

PRODUK : GAS + KONDENSAT + LPG

Product	Unit Cost		Unit Rate	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
	Min	Max																									
LPG																											
YEAR				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Gas Feed			mmscd				150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	
LPG Production			ton/day				Ratio Gas to LPG Ratio	0.55	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	71.1	71.1	65.6	65.6	54.7	54.7	43.7	27.3	16.4
LPG Price (CP ARAMCO)	476	780	US\$/ton																								
LPG Price (Indonesia)	691	1132	US\$/ton																								
LPG Revenue Indonesia (min)			US\$/year	10%	134,703,667		15,537,249	14,124,772	12,840,702	11,673,365	10,612,150	9,647,409	8,770,372	7,973,066	7,248,242	6,589,310	5,990,282	4,719,616	4,290,560	3,600,470	3,273,155	2,479,663	2,254,239	1,639,446	931,504	508,093	
LPG Revenue Indonesia (max)			US\$/year	10%	220,735,895		25,460,544	23,145,949	21,041,772	19,128,884	17,389,894	15,808,955	14,371,813	13,065,285	10,797,756	9,816,142	9,161,142	7,733,930	7,030,845	5,900,010	5,363,646	4,063,368	3,693,971	2,686,524	1,526,434	832,600	
GAS UNTUK EXPORT																											
YEAR				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Gas Price (export)	9	12	US\$/mbtu																								
Gas Production			mmscd				128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8		
Gas Production			mmbtu/d				Conversion mmscd to mbtu	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001		
Gas Revenue (min)			US\$/year	10%	2,756,102,203		318,332,345	289,393,041	263,084,583	239,167,802	217,425,275	197,659,341	179,690,310	163,354,827	148,504,388	135,003,989	122,730,899	96,327,470	87,570,428	73,309,449	66,644,954	50,350,546	45,773,224	33,201,601	18,656,731	9,920,998	
Gas Revenue (max)			US\$/year	10%	3,674,802,937		424,443,127	385,857,388	350,779,444	318,890,403	289,900,367	263,545,788	239,587,080	217,806,436	198,005,851	180,005,319	163,641,199	128,436,627	116,760,570	97,745,932	88,859,938	67,134,062	61,030,965	44,268,802	24,875,641	13,227,998	
GAS UNTUK DOMESTIK																											
YEAR				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Gas Price (domestic)	2	4	US\$/mbtu																								
Gas Production			mmscd				128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8		
Gas Production			mmbtu/d				Conversion mmscd to mbtu	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001	1.001		
Gas Revenue (min)			US\$/year	10%	612,467,156		70,740,521	64,309,565	58,463,241	53,148,401	48,316,728	43,924,298	39,931,180	36,301,073	33,000,975	30,000,887	27,273,533	21,406,105	19,460,095	16,290,989	14,809,990	11,189,010	10,171,828	7,378,134	4,145,940	2,204,666	
Gas Revenue (max)			US\$/year	10%	1,224,934,312		141,481,042	128,619,129	116,926,481	106,298,801	96,633,456	87,848,596	79,862,360	72,602,145	66,001,950	60,001,773	54,547,066	42,812,209	38,920,190	32,581,977	29,619,979	22,378,021	20,343,655	14,756,267	8,291,880	4,409,333	
KONDENSAT																											
YEAR				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Condensate Price	50	70	US\$/bbl																								
Condensate Production			bb/d				Ratio Gas to Condensate Ratio	33.17	4,975	4,975	4,975	4,97															

LAMPIRAN - E: PENDAPATAN PER TAHUN DARI PENJUALAN PRODUK LAPANGAN "X" (SUMATERA SELATAN)

PRODUK : GAS + KONDENSAT

11

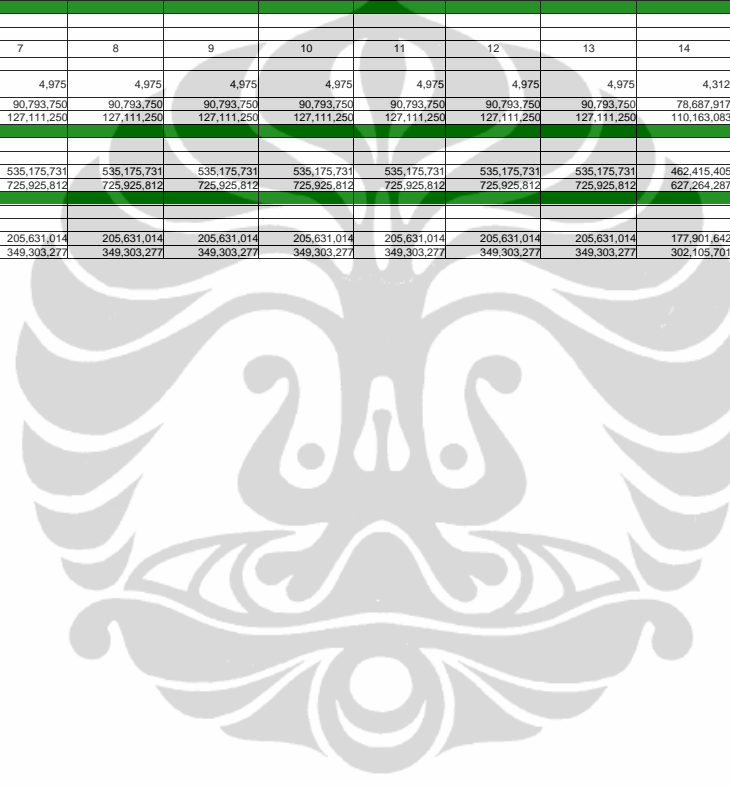
Product	Unit Cost		Unit Rate	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	
	Min	Max																									
GAS UNTUK EXPORT																											
YEAR				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Gas Price (export)	9	12	US\$/mbtu																								
Gas Feed			mmscfd				150	150	150	150	150	150	150	150	150	150	150	130	130	120	100	100	80	50	30		
Gas Production			mmscfd				130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	112.7	112.7	103.9	103.9	86.6	86.6	69.4	43.5	26.1	
Gas Production			mmbtu/d				133.6	133.6	133.6	133.6	133.6	133.6	133.6	133.6	133.6	133.6	133.6	115.5	115.5	106.5	106.5	88.8	88.8	71.1	44.6	26.7	
Gas Revenue (min)			US\$/Year				438,736,388	438,736,388	438,736,388	438,736,388	438,736,388	438,736,388	438,736,388	438,736,388	438,736,388	438,736,388	438,736,388	379,474,988	379,474,988	349,844,288	349,844,288	291,593,025	291,593,025	233,678,475	146,368,924	87,713,609	
Gas Revenue (max)			US\$/Year				584,981,850	584,981,850	584,981,850	584,981,850	584,981,850	584,981,850	584,981,850	584,981,850	584,981,850	584,981,850	584,981,850	505,966,650	505,966,650	466,459,050	466,459,050	386,790,700	386,790,700	311,571,300	195,158,565	116,951,475	
GAS UNTUK DOMESTIK																											
YEAR				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Gas Price (domestic)	2	4	US\$/mbtu																								
Gas Feed			mmscfd				130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	130.3	112.7	112.7	103.9	103.9	86.6	86.6	69.4	43.5	26.1	
Gas Production			mmbtu/d				133.6	133.6	133.6	133.6	133.6	133.6	133.6	133.6	133.6	133.6	133.6	115.5	115.5	106.5	106.5	88.8	88.8	71.1	44.6	26.7	
Gas Revenue (min)			US\$/Year				97,496,975	97,496,975	97,496,975	97,496,975	97,496,975	97,496,975	97,496,975	97,496,975	97,496,975	97,496,975	97,496,975	84,327,775	84,327,775	77,743,175	77,743,175	64,798,450	64,798,450	51,928,550	32,526,428	19,491,913	
Gas Revenue (max)			US\$/Year				194,993,950	194,993,950	194,993,950	194,993,950	194,993,950	194,993,950	194,993,950	194,993,950	194,993,950	194,993,950	194,993,950	168,655,550	168,655,550	155,486,350	155,486,350	129,596,900	129,596,900	103,857,100	65,052,855	38,983,625	
KONDENSAT																											
YEAR				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Condensate Price	50	70	US\$/bbl																								
Condensate Production			bbl/d				4,964	4,964	4,964	4,964	4,964	4,964	4,964	4,964	4,964	4,964	4,964	4,302	4,302	3,971	3,971	3,309	3,309	2,647	1,655	993	
Condensate Revenue (min)			US\$/Year				90,593,000	90,593,000	90,593,000	90,593,000	90,593,000	90,593,000	90,593,000	90,593,000	90,593,000	90,593,000	90,593,000	78,513,933	78,513,933	72,474,400	72,474,400	60,395,333	60,395,333	48,316,267	30,197,667	18,118,600	
Condensate Revenue (max)			US\$/Year				126,830,200	126,830,200	126,830,200	126,830,200	126,830,200	126,830,200	126,830,200	126,830,200	126,830,200	126,830,200	126,830,200	109,919,507	109,919,507	101,464,163	101,464,163	84,553,467	84,553,467	67,642,773	42,276,733	25,366,040	
GAS UNTUK EXPORT																											
Total Revenue (min)			US\$/Year				529,329,388	529,329,388	529,329,388	529,329,388	529,329,388	529,329,388	529,329,388	529,329,388	529,329,388	529,329,388	529,329,388	457,988,921	457,988,921	422,318,688	422,318,688	351,988,358	351,988,358	281,994,742	176,566,590	105,832,206	
Total Revenue (max)			US\$/Year				711,812,050	711,812,050	711,812,050	711,812,050	711,812,050	711,812,050	711,812,050	711,812,050	711,812,050	711,812,050	711,812,050	615,886,157	615,886,157	567,923,210	567,923,210	473,344,167	473,344,167	379,214,073	237,435,298	142,317,515	
GAS UNTUK DOMESTIK																											
Total Revenue (min)			US\$/Year				188,089,975	188,089,975	188,089,975	188,089,975	188,089,975	188,089,975	188,089,975	188,089,975	188,089,975	188,089,975	188,089,975	162,841,708	162,841,708	150,217,575	150,217,575	125,193,783	125,193,783	100,244,817	62,724,094	37,610,513	
Total Revenue (max)			US\$/Year				321,824,150	321,824,150	321,824,150	321,824,150	321,824,150	321,824,150	321,824,150	321,824,150	321,824,150	321,824,150	321,824,150	278,575,057	278,575,057	256,950,510	256,950,510	214,150,367	214,150,367	171,499,873	107,329,588	64,349,865	



Pengembangan LPG..., I Nyoman Arya Sidi Mantra, FT UI, 2010.

PRODUK : GAS + KONDENSAT + LPG

Product	Unit Cost		Unit Rate	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	Min	Max																								
LPG																										
YEAR				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Gas Feed			mmscfd				150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	150.0	130.0	130.0	120.0	120.0	100.0	100.0	80.0	50.0	30.0
LPG Production			ton/day			Ratio Gas to LPG Ratio	0.55	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	82.0	71.1	71.1	65.6	65.6	54.7	54.7	43.7	27.3	16.4
LPG Price (GP ARAMCO)	476	780	US\$/ton																							
LPG Price (Indonesia)	691	1132	US\$/ton																							
LPG Revenue Indonesia (min)			US\$/year				20,681,630	20,681,630	20,681,630	20,681,630	20,681,630	20,681,630	20,681,630	20,681,630	20,681,630	20,681,630	20,681,630	17,924,079	17,924,079	16,545,304	16,545,304	13,787,753	13,787,753	11,030,203	6,893,877	4,136,326
LPG Revenue Indonesia (max)			US\$/year				33,880,760	33,880,760	33,880,760	33,880,760	33,880,760	33,880,760	33,880,760	33,880,760	33,880,760	33,880,760	33,880,760	29,363,325	29,363,325	27,104,608	27,104,608	22,587,173	22,587,173	18,069,739	11,293,587	6,776,152
GAS UNTUK EXPORT																										
YEAR				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Gas Price (export)	9	12	US\$/mbtu				128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	111.2	111.2	102.4	102.4	85.1	85.1	67.9	42.0	24.6
Gas Production			mmscfd			Conversion mmscfd to mbtu	1.001	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	111.4	111.4	102.5	102.5	85.2	85.2	68.0	42.0	24.6
Gas Revenue (min)			US\$/year				423,700,351	423,700,351	423,700,351	423,700,351	423,700,351	423,700,351	423,700,351	423,700,351	423,700,351	423,700,351	423,700,351	365,803,409	365,803,409	336,854,938	336,854,938	279,944,875	279,944,875	223,363,772	138,064,470	80,759,655
Gas Revenue (max)			US\$/year				564,933,802	564,933,802	564,933,802	564,933,802	564,933,802	564,933,802	564,933,802	564,933,802	564,933,802	564,933,802	564,933,802	487,737,878	487,737,878	449,139,917	449,139,917	373,259,833	373,259,833	297,818,363	184,085,960	107,679,541
GAS UNTUK DOMESTIK																										
YEAR				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Gas Price (domestic)	2	4	US\$/mbtu				128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	128.8	111.2	111.2	102.4	102.4	85.1	85.1	67.9	42.0	24.6
Gas Production			mmscfd			Conversion mmscfd to mbtu	1.001	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	129.0	111.4	111.4	102.5	102.5	85.2	85.2	68.0	42.0	24.6
Gas Revenue (min)			US\$/year				94,155,634	94,155,634	94,155,634	94,155,634	94,155,634	94,155,634	94,155,634	94,155,634	94,155,634	94,155,634	94,155,634	81,289,648	81,289,648	74,856,653	74,856,653	62,209,972	62,209,972	49,636,394	30,680,993	17,946,590
Gas Revenue (max)			US\$/year				188,311,267	188,311,267	188,311,267	188,311,267	188,311,267	188,311,267	188,311,267	188,311,267	188,311,267	188,311,267	188,311,267	162,579,293	162,579,293	149,713,306	149,713,306	124,419,944	124,419,944	99,272,788	61,361,887	35,893,180
KONDENSAT																										
YEAR				0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Condensate Price	50	70	US\$/bbl			Ratio Gas to Condensate Ratio	33.17	4.975	4.975	4.975	4.975	4.975	4.975	4.975	4.975	4.975	4.975	4.312	4.312	3.980	3.980	3.317	3.317	2.653	1.658	995
Condensate Production			bb/d				90,793,750	90,793,750	90,793,750	90,793,750	90,793,750	90,793,750	90,793,750	90,793,750	90,793,750	90,793,750	90,793,750	78,687,917	78,687,917	72,635,000	72,635,000	60,529,167	60,529,167	48,423,333	30,264,583	18,158,750
Condensate Revenue (min)			US\$/year				127,111,250	127,111,250	127,111,250	127,111,250	127,111,250	127,111,250	127,111,250	127,111,250	127,111,250	127,111,250	127,111,250	110,163,083	110,163,083	101,689,000	101,689,000	84,740,833	84,740,833	67,792,667	42,370,417	25,422,250
Condensate Revenue (max)			US\$/year				127,111,250	127,111,250	127,111,250	127,111,250	127,111,250	127,111,250	127,111,250	127,111,250	127,111,250	127,111,250	127,111,250	110,163,083	110,163,083	101,689,000	101,689,000	84,740,833	84,740,833	67,792,667	42,370,417	25,422,250
GAS UNTUK EXPORT																										
Total Revenue (min)			US\$/year				535,175,731	535,175,731	535,175,731	535,175,731	535,175,731	535,175,731	535,175,731	535,175,731	535,175,731	535,175,731	535,175,731	462,415,405	462,415,405	426,035,242	426,035,242	354,261,795	354,261,795	282,817,308	175,222,930	103,054,731
Total Revenue (max)			US\$/year				725,925,812	725,925,812	725,925,812	725,925,812	725,925,812	725,925,812	725,925,812	725,925,812	725,925,812	725,925,812	725,925,812	627,264,287	627,264,287	577,933,525	577,933,525	480,587,840	480,587,840	383,680,768	237,749,963	139,877,943
GAS UNTUK DOMESTIK																										
Total Revenue (min)			US\$/year				205,631,014	205,631,014	205,631,014	205,631,014	205,631,014	205,631,014	205,631,014	205,631,014	205,631,014	205,631,014	205,631,014	177,901,642	177,901,642	164,036,957	164,036,957	136,526,892	136,526,892	109,089,930	67,839,453	40,241,666
Total Revenue (max)			US\$/year				349,303,277	349,303,277	349,303,277	349,303,277	349,303,277	349,303,277	349,303,277	349,303,277	349,303,277	349,303,277	349,303,277	302,105,701	302,105,701	278,506,914	278,506,914	231,747,951	231,747,951	185,135,193	115,025,990	68,081,582



LAMPIRAN - E : EVALUASI NET PRESENT VALUE (NPV) - LAPANGAN "X" (IRR: 10%, PAJAK: 44%)

PRODUK	DETAIL	TIPE BIAYA	REMARKS	PV	2011	2012	2013	2014	2015	2016	2017	
Gas Kondensat LPG	Gas untuk Domestik	Revenue (MIN)	FV				205,631,014	205,631,014	205,631,014	205,631,014	205,631,014	
		OPEX	FV	100%	3,000,000	2,000,000	65,023,614	65,623,614	70,663,614	72,883,614	72,463,614	
		Construction	PV		210,846,129							
			n		0	1	2	3	4	5	6	7
		PV	10%		476,670,011	-2,727,273	-1,652,893	59,158,635	53,551,085	46,930,316	41,962,170	38,268,122
		MARR	20%									
	NPV			265,823,882								

Gas Kondensat LPG	Gas untuk Domestik	Revenue (MAX)	FV				349,303,277	349,303,277	349,303,277	349,303,277	349,303,277	
		OPEX	FV	100%	3,000,000	2,000,000	65,023,614	65,623,614	70,663,614	72,883,614	72,463,614	
		Construction	PV		210,846,129							
			n		0	1	2	3	4	5	6	7
		PV	10%		1,000,271,824	-2,727,273	-1,652,893	119,606,770	108,503,935	96,887,453	87,377,748	79,555,012
		MARR	20%									
	NPV			789,425,695								

Gas Kondensat	Gas untuk Domestik	Revenue (MIN)	FV				188,089,975	188,089,975	188,089,975	188,089,975	188,089,975	
		OPEX	FV		3,000,000	2,000,000	64,723,614	65,073,614	70,113,614	72,333,614	71,563,614	
		Construction	PV		163,511,817							
			n		0	1	2	3	4	5	6	7
		PV	10%		416,064,959	-2,727,273	-1,652,893	51,904,705	47,052,225	41,022,261	36,591,211	33,486,011
		MARR	20%									
	NPV			252,553,142								

Gas Kondensat	Gas untuk Domestik	Revenue (MAX)	FV				321,824,150	321,824,150	321,824,150	321,824,150	321,824,150	
		OPEX	FV		3,000,000	2,000,000	64,723,614	65,073,614	70,113,614	72,333,614	71,563,614	
		Construction	PV		163,511,817							
			n		0	1	2	3	4	5	6	7
		PV	10%		903,733,214	-2,727,273	-1,652,893	108,171,525	98,203,880	87,523,766	78,865,306	71,917,006
		MARR	20%									
	NPV			740,221,397								

LPG	LPG untuk Domestik	Revenue (MIN)	FV				20,681,630	20,681,630	20,681,630	20,681,630	20,681,630	
		OPEX	FV		0	0	300,000	550,000	550,000	550,000	900,000	
		Construction	PV		47,334,312							
			n		0	1	2	3	4	5	6	7
		PV	10%		72,378,172			8,575,291	7,700,098	7,000,089	6,363,717	5,684,618
		MARR	20%									
	NPV			25,043,860								

LPG	LPG untuk Domestik	Revenue (MAX)	FV				33,880,760	33,880,760	33,880,760	33,880,760	33,880,760	
		OPEX	FV				300,000	550,000	550,000	550,000	900,000	
		Construction	PV		47,334,312							
			n		0	1	2	3	4	5	6	7
		PV	10%		120,524,211			14,128,644	12,748,600	11,589,637	10,536,033	9,477,633
		MARR	20%									
	NPV			73,189,898								

Pengembangan LPG..., I Nyoman Arya Sidi Mantra, FT UI, 2010.

2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
205,631,014	205,631,014	205,631,014	205,631,014	205,631,014	205,631,014	177,901,642	177,901,642	164,036,957	164,036,957	136,526,892	136,526,892	109,089,930	67,839,453	40,241,666
72,103,614	71,503,614	75,343,614	72,583,614	74,743,614	71,503,614	69,337,569	66,877,569	65,761,590	63,661,590	60,862,926	58,102,926	54,542,001	43,539,605	41,489,487
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
34,883,250	31,854,542	28,129,602	26,114,089	23,354,665	21,757,081	16,009,456	14,883,837	11,977,047	11,120,889	7,620,944	7,180,849	4,540,593	1,838,845	-85,842

349,303,277	349,303,277	349,303,277	349,303,277	349,303,277	349,303,277	302,105,701	302,105,701	278,506,914	278,506,914	231,747,951	231,747,951	185,135,193	115,025,990	68,091,582
72,103,614	71,503,614	75,343,614	72,583,614	74,743,614	71,503,614	69,337,569	66,877,569	65,761,590	63,661,590	60,862,926	58,102,926	54,542,001	43,539,605	41,489,487
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
72,416,786	65,975,938	59,149,053	54,313,590	48,990,575	45,062,454	34,325,270	31,534,577	25,927,765	23,803,361	17,211,697	15,899,716	10,870,634	5,409,598	1,830,058

188,089,975	188,089,975	188,089,975	188,089,975	188,089,975	188,089,975	162,841,708	162,841,708	150,217,575	150,217,575	125,193,783	125,193,783	100,244,817	62,724,094	37,610,513
70,353,614	70,953,614	74,793,614	72,033,614	72,643,614	70,953,614	68,787,569	66,327,569	64,011,590	62,761,590	60,312,926	57,552,926	52,792,001	42,989,605	40,589,487
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
30,757,934	27,819,261	24,461,165	22,779,146	20,599,470	19,000,930	13,869,741	12,938,642	10,506,123	9,689,512	6,534,860	6,193,500	3,949,993	1,493,370	-204,935

321,824,150	321,824,150	321,824,150	321,824,150	321,824,150	321,824,150	278,575,057	278,575,057	256,950,510	256,950,510	214,150,367	214,150,367	171,499,873	107,329,588	64,349,865
70,353,614	70,953,614	74,793,614	72,033,614	72,643,614	70,953,614	68,787,569	66,327,569	64,011,590	62,761,590	60,312,926	57,552,926	52,792,001	42,989,605	40,589,487
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
65,695,202	59,580,414	53,334,941	49,028,033	44,462,095	40,694,225	30,936,417	28,453,802	23,513,913	21,514,776	15,494,649	14,338,762	9,881,295	4,868,807	1,634,565

20,681,630	20,681,630	20,681,630	20,681,630	20,681,630	20,681,630	17,924,079	17,924,079	16,545,304	16,545,304	13,787,753	13,787,753	11,030,203	6,893,877	4,136,326
1,750,000	550,000	550,000	550,000	2,100,000	550,000	550,000	550,000	1,750,000	900,000	550,000	550,000	1,750,000	550,000	900,000
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
4,945,777	4,781,155	4,346,504	3,951,368	3,315,581	3,265,593	2,562,077	2,329,161	1,803,138	1,733,390	1,333,319	1,212,108	772,488	480,061	222,639

33,880,760	33,880,760	33,880,760	33,880,760	33,880,760	33,880,760	29,363,325	29,363,325	27,104,608	27,104,608	22,587,173	22,587,173	18,069,739	11,293,587	6,776,152
1,750,000	550,000	550,000	550,000	2,100,000	550,000	550,000	550,000	1,750,000	900,000	550,000	550,000	1,750,000	550,000	900,000
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
8,393,973	7,915,878	7,196,252	6,542,048	5,670,745	5,406,651	4,248,971	3,862,701	3,090,025	2,903,288	2,219,604	2,017,822	1,358,462	813,001	404,243