

Management's Discussion and
Analysis of Financial Condition and Result of Operations
Star Petroleum Refining Public Company Limited
For Quarter 3/2021 and
9 months ended September 2021





1) Company's Operating Result

(US\$ Million)	Q3/21	Q2/21	+/(-)		Q3/20	+/(-)		9M/21	9M/20	+/(-)
Total Revenue	1,245	1,318	(73)		1,024	221		3,776	3,088	688
EBITDA	25	56	(31)		35	(10)		187	(200)	387
EBIT	6	33	(27)		12	(6)		124	(267)	391
(Loss) gain on foreign exchange	(6)	(0)	(6)		4	(10)		(8)	8	(17)
Net income (Loss)	4	25	(21)		8	(5)		94	(216)	310
Net income (Loss) (US\$ per share)	0.00	0.01	(0.00)		0.00	(0.00)		0.02	(0.05)	0.07
Accounting gross refining margin (US\$/barrel) (1)	4.38	6.64	(2.26)		3.94	0.44		7.27	(3.38)	10.65
Market gross refining margin (US\$/barrel) (2)	2.34	2.65	(0.31)		1.53	0.81		2.85	2.45	0.40
				:			:	T		
Crude intake (thousand barrels/day)	128.8	135.3	(6.5)		142.2	(13.4)		133.7	145.7	(12.0)
			<i>(</i> /,)							<i>((</i>)
(Baht Million)	Q3/21	Q2/21	+/(-)		Q3/20	+/(-)		9M/21	9M/20	+/(-)
Total Revenue	41,193	41,545	(352)		32,248	8,945		119,682	97,455	22,227
EBITDA	816	1,759	(943)		1,089	(274)		5,821	(6,369)	12,190
EBIT	195	1,049	(853)		384	(188)		3,804	(8,501)	12,306
(Loss) gain on foreign exchange	(213)	(12)	(201)		110	(324)		(273)	271	(544)
Net income (Loss)	113	773	(661)		268	(155)		2,892	(6,867)	9,759
Net income (Loss) (Baht per share)	0.03	0.18	(0.15)		0.06	(0.04)		0.67	(1.58)	2.25

⁽¹⁾ margin includes inventory gain/loss based on weighted average inventory cost.

 $^{^{(2)}}$ margin is calculated based on current replacement cost.

Exchange rate (Baht/US\$)	Q3/21	Q2/21	+/(-)	Q3/20	+/(-)	9M/21	9M/20	+/(-)
Average FX	33.10	31.53	1.57	31.49	1.60	31.71	31.68	0.03
Closing FX	34.09	32.22	1.87	31.83	2.27	34.09	31.83	2.27

Crude price in Q3/21 slightly increased as the OPEC+ agreed to adhere to its increased production and the impact from hurricane Ida. However, the oil demand and refining margin in Q3/21 was disrupted from virus especially Delta variant as rising of infection cases in Asia, and as a result, the COVID-19 restrictions were imposed in several major oil consuming countries. The rising number of the infection cases in Thailand also caused the Thai government enforced lockdown measures to curb the spread of cases which impacted domestic demand and led SPRC to cut the refinery run to the optimum level. In Q3/21, SPRC refinery utilization rate for the crude intake was 129 thousand barrels per day, equivalent to 74% of the refining capacity, decreased from 135 thousand barrels per day in Q2/21 while there was a minor maintenance on the Residual Fluidized Catalytic Cracking Unit (RFCCU) during 25th September – 8th October 2021.

Comparing financial performance for Q3/21 and Q2/21, sale revenue slightly decreased from US\$1,318 million to US\$1,245 million due to a decreased demand, while net income also decreased from US\$25 million in Q2/21 to US\$4 million in Q3/21. The lower EBITDA, EBIT and net income in Q3/21 were mainly contributed by the decrease in both stock gain and market refining margin. Oil price marginally increased in Q3/21 which created a slight stock gain. Crude price was down during August due to the lockdown measures and recovered back in September due to the easing of the restriction. Excluding stock gain, market refining margin slightly decreased from US\$2.65/barrel in Q2/21 to US\$2.34/barrel in Q3/21, pressured by the virus expansion which led to the lockdown and traveling limitation. Total operating expenses in this quarter slightly decreased from the provision for employee benefit obligation in prior quarter while there was an increase of loss on foreign exchange from baht depreciation.



Comparing Q3/21 with Q3/20, sale revenue increased 22% in Q3/21 due to the increase in oil price which also led to higher accounting margin. Q3/21 market margin of US\$2.34/bbl also improved from US\$1.53/bbl in prior year quarter. However, financial performance in Q3/21 was negatively impacted by lower marketing margin and Baht depreciation. NIAT in Q3/21 was at US\$ 4 million lower than Q3/20 which was at US\$ 8 million. Total operating expenses was slightly higher than previous year quarter while there was loss on foreign exchange from baht depreciation in Q3/21 comparing to gain on foreign exchange in prior year quarter.

Compared 9M/21 with 9M/20, despite the lower sale volume effected from lower demand in refined products from lockdown measures, sale revenue increased 22% due to increase in oil price. A significant stock gain due to oil price resuming in 2021 led to positive EBITDA, EBIT and net earnings in 9M/21 comparing to significant loss in 9M/20 as a result of oil price fall. NIAT in 9M/21 was US\$94 million whilst it was net loss of US\$216 million in 9M/20. Excluding stock gain or loss, 9M/21 market gross refining margin slightly improved to US\$2.85/bbl, comparing to US\$2.45/bbl in 9M/20 due to the improved crack spread during first quarter of this year mainly in gasoline due to the easing of movement restrictions in Europe and USA and also improvement in FO crack during Q3/21 due to increased demand for power generation

2) Market Condition

Pricing	Q3/21	Q2/21	+/(-)
Dubai crude oil	71.68	67.02	4.66
Light Naphtha (MOPJ)	75.11	67.38	7.72
Gasoline (premium)	83.44	76.91	6.53
Jet Fuel	77.08	71.51	5.57
Diesel	77.12	72.26	4.86
Fuel Oil	68.35	61.21	7.14

Q3/20	+/(-)
42.94	28.74
44.09	31.02
47.35	36.09
42.21	34.87
47.12	30.00
40.40	27.95

Spread over Dubai	Q3/21	Q2/21	+/(-)
Light Naphtha (MOPJ)	3.43	0.36	3.06
Gasoline (premium)	11.76	9.89	1.88
Jet Fuel	5.40	4.49	0.92
Diesel	5.44	5.24	0.20
Fuel Oil	-3.33	-5.81	2.48

Q3/20	+/(-)
1.15	2.28
4.41	7.35
-0.73	6.13
4.19	1.25
-2.54	-0.79

Average Dubai price for Q3/21 was US\$71.68/bbl, which increased from US\$67.02/bbl in Q2/21. The crude oil price continued rally as rebounding on optimism about global economic growth and further improvement of vaccination rates, however the severity of coronavirus pandemic remains challenges to the oil demand recoverable. On the supply side, OPEC+ agreed to adhere to its July pact to boost output by 400,000 bpd each month until at least April 2022 and aimed to fully phase out cuts by around September 2022. However, this was offset by the fast recovery of fuel demand despite the outbreak of the COVID-19 Delta variant as well as the U.S. production cuts in the Gulf Coast due to Hurricane Ida.

Gasoline spread over Dubai in Q3/21 increased to US\$11.76/bbl. In the early of Q3/21, the market was bullish on gasoline which was largely fueled by strong summer driving demand in the US and lower gasoline exports from China and India. Moreover, sentiment in the Asian gasoline market stayed supported in July with tight motor fuel supplies continuing to bolster regional fundamentals. Mobility indicators remain depressed for several markets in Asia, especially in Southeast Asia where Thailand, Philippines, Vietnam, and Australia have movement restrictions to curb climbing infection rates. However, demand is gradually improving in China and Indonesia where infection rates have fallen. Global light distillate inventory levels in 5 key areas are generally near the lower end of recent historical 5-year ranges, while Singapore inventories were between 5-year highs and lows due to the post-pandemic reopening of several Asian economies, which has boosted gasoline demand in the region.

Naphtha spread over Dubai in Q3/21 increased to US\$3.43/bbl. The naphtha crack was supported by increased naphtha demand due to upcoming new cracker start-ups and the return of petrochemical producers from planned maintenances. Healthy olefin margins and poor LPG cracking economics also continued to support naphtha cracking demand. However, the "dual control" policy from China have disrupted cracker production rates, which resulted to limit demand.



Jet and diesel crack spreads over Dubai increased from previous quarter to be US\$5.40/bbl and US\$5.44/bbl respectively. The jet crack during July and August remained steady compared with previous quarter due to lackluster demand owing to the virus resurgence in several countries. However, both domestic and international flights picked up in the United States and Europe, outweighing lower demand in other regions. In September, the jet crack improved as some countries relaxed border controls to allow nonessential cross-border movements. Diesel crack in July and August was disrupted by the virus resurgence in some Southeast Asian markets which dampened the demand recovery. Worrying signs of demand disruption continued to be seen across the region, with some countries reporting record spikes in daily COVID-19 caseloads, which have resulted in fresh movement restrictions and curfews being put in place that put a strain on demand. However, crack strengthened in September supported by recovering industrial and manufacturing activities as the wet weather season winds down and the start of diesel stockpiling activities in Europe ahead of winter is the key driver behind the recent strength. Global middle distillate inventory levels in 5 key areas were at their lowest since 2014 and lower than the 2017-2019 average, with deficits in all key areas except for Fujairah. Singapore middle distillate stocks decreased to 10.5 million barrels, falling 24% Q-o-Q as more economic activities resume following the easing of COVID-19 restrictions across Asia.

Fuel oil spread over Dubai in Q3/21 was -US\$3.33/bbl, which was higher than Q2/21. Fuel oil cracks strengthened as seasonal demand from summer power generation and feedstock requirements from Indian and Chinese refiners. Bunker demand with the recovery of manufacturing activity in virus-hit countries also helped support the market. In addition, the high LNG prices have also raised the attractiveness to switch to fuel oil. The regional stock levels declined slightly, supporting the higher cracks. Singapore onshore fuel oil inventories decreased by 9% Q-o-Q to 22.0 million barrels.

Due to higher crude premiums, SPRC's average market refining margin in Q3/21 was US\$2.34/bbl, which is lower as compared to US\$2.65/bbl in Q2/21. In Q3/21, SPRC continuing capture margin by optimizing crude slate and throughput to meet domestic demand and by minimizing fuel oil production by producing higher value products such as on grade DSR (Dynamic Shear Rheometer) asphalt and decant oil as carbon black feedstock.



3) Financial Results

	US\$ Million			
	Q3/21	Q2/21	+/(-)	
Total Revenue	1,245	1,318	(73)	
Cost of sales	(1,226)	(1,276)	50	
Gross profit	19	42	(23)	
Other income	0	0	0	
(Loss) gain on exchange rate	(5)	(1)	(4)	
Administrative expenses	(7)	(8)	2	
Finance costs	(2)	(2)	0	
Fair value (loss) gain on derivatives	(1)	1	(2)	
Income tax	(1)	(7)	6	
Net income (Loss)	4	25	(21)	

US\$ Million				
Q3/20	+/(-)			
1,024	221			
(1,009)	(217)			
15	4			
0	0			
1	(6)			
(6)	(0)			
(2)	(0)			
3	(4)			
(2)	1			
8	(5)			

US\$ Million					
9M/21	9M/20	+/(-)			
3,776	3,088	688			
(3,622)	(3,339)	(283)			
154	(251)	405			
1	1	0			
3	7	(4)			
(23)	(25)	2			
(5)	(4)	(1)			
(11)	2	(12)			
(24)	55	(80)			
94	(216)	310			

	Baht Million			
	Q3/21	Q2/21	+/(-)	
Total Revenue	41,193	41,545	(352)	
Cost of sales	(40,580)	(40,230)	(350)	
Gross profit	613	1,315	(702)	
Other income	16	13	3	
(Loss) gain on exchange rate	(164)	(29)	(134)	
Administrative expenses	(220)	(267)	47	
Finance costs	(54)	(53)	(1)	
Fair value (loss) gain on derivatives	(50)	17	(67)	
Income tax	(28)	(222)	194	
Net income (Loss)	113	773	(661)	

lillion	Baht N
+/(-)	Q3/20
8,945	32,248
(8,793)	(31,787)
152	461
3	13
(183)	20
(20)	(200)
(5)	(49)
(141)	91
39	(67)
(155)	268

-							
Baht Million							
9M/21	9M/20	+/(-)					
119,682	97,455	22,227					
(114,921)	(105,469)	(9,452)					
4,760	(8,014)	12,775					
42	33	9					
63	221	(158)					
(725)	(790)	65					
(160)	(132)	(29)					
(336)	50	(386)					
(752)	1,766	(2,518)					
2,892	(6,867)	9,759					

Production Volumes

Thousands barrels

Petroleum products	Q3/21	Q2/21	Q3/20
Polymer Grade Propylene	386	408	446
Liquefied Petroleum Gas	527	599	612
Light Naphtha	798	817	858
Gasoline	3,687	3,784	4,007
Jet Fuel	244	294	1
Diesel	4,991	5,335	6,107
Fuel Oil	512	526	503
Asphalt	139	237	235
Mix C4	533	506	508
Other ⁽¹⁾	924	1,022	1,010
Total production	12,742	13,528	14,286

9M/21	9M/20				
1,237	1,231				
1,775	1,798				
2,373	2,559				
11,384	11,318				
850	1,653				
15,448	18,550				
1,515	2,201				
520	477				
1,610	1,522				
3,031	3,178				
39,744	44,487				
chango					

⁽¹⁾ Includes sulfur and reformate and products sold pursuant to our cracker feed exchange.



Total Sale Revenue

US\$ Million

Petroleum products (1)	Q3/21	Q2/21	Q3/20
Polymer Grade Propylene	31	35	27
Liquefied Petroleum Gas	32	27	21
Light Naphtha	60	55	34
Gasoline	420	442	349
Jet Fuel	26	23	4
Diesel	528	578	491
Fuel Oil	31	30	16
Asphalt	10	16	10
Mix C4	39	39	27
Crude	0	0	0
Others (2)	68	73	46
Total Revenue	1,245	1,318	1,024

USŞ IVIIIIUII				
9M/20				
71				
65				
97				
960				
95				
1,503				
74				
19				
65				
10				
129				
3,088				

Sale revenue in Q3/21 decreased 6% from Q2/21 from the decrease in sale volume from 14.3 million barrels in Q2/21 to 13.1 million barrels in Q3/21 mainly from a decrease in domestic demand of Diesel and Mogas due to the government lockdown measures during the rising of COVID-19 infections in Thailand, partly offset with an increase of average oil price during Q3/21.

Comparing Q3/21 with Q3/20, sale revenue increased 22% which impacted by higher oil price. An increase in petroleum product price was partly offset by a decrease in sale volume which decreased from 14.7 million barrels in Q3/20 to 13.1 million barrels in Q3/21, significantly caused by a decreased domestic demand from the government lockdown measures.

Similarly, sale revenue for 9M/21 also increased 22% compared to 9M/20 due to higher oil price but offset by lower sale volume which decreased from 46.1 million barrels to 41.0 million barrels.

The table presents breakdown on revenues from sale of petroleum products to company's customers.

Customer	Q3/21	Q2/21	Q3/20
Chevron	42%	47%	52%
PTT & PTTOR	42%	38%	35%
Other oil and petrochemical companies	16%	15%	13%
Total	100%	100%	100%

9M/21	9M/20
45%	53%
39%	35%
16%	12%
100%	100%

Cost of Sales

As a result of lower crude intake in Q3/21, the cost of sale decreased 4% comparing to prior quarter. The decrease in cost of sale was in line with the decrease in sales revenue due to lower domestic demand in this quarter.

Comparing Q3/21 to Q3/20, despite the lower sale volume, cost of sales in Q3/21 increased which reflected from oil price resuming in this quarter while there was a significant drop in prior year quarter.

Cost of sales in 9M/21 increased 8% from 9M/20. The increase in cost of crude oil on weighted average inventory was offset by lower sale volume.

⁽¹⁾ Includes Government LPG and oil subsidies.

⁽²⁾ Includes sulfur, reformate and products sold pursuant to our cracker feed exchange.



Gain / (loss) on Foreign Exchange and Financial Derivatives

US economic recovery and Thailand struggling to restore the economy caused the Thai currency weak in 2021 and fell to its weakest value since 2017. This resulted to exchange loss (including derivatives) in both Q3/21 and Q2/21. Exchange loss of US\$6.5 million in Q3/21 was higher than exchange loss in Q2/21 of US\$0.4 million due to higher Baht depreciation than previous quarter. Baht weakened resulted in a decrease in the value of Baht denominated receivables when converted to US\$ equivalent.

Comparing Q3/21 to Q3/20, because value of Baht declined in Q3/21, it resulted in exchange loss of US\$6.5 million when SPRC converted its Baht denominated receivables to US\$ receivables. On the contrary, Baht appreciated in Q3/20 and caused exchange gain of US\$3.5 million.

Comparing 9M/21 to 9M/20, Thai Baht value against US\$ in 9M/21 continued to decline due to the economic downturn and resulted to exchange loss of US\$8 million comparing to exchange gain of US\$8 million in the same period of prior year when Baht appreciated in value.

Administrative Expenses

Comparing Q3/21 with Q2/21 and Q3/20, administrative expense decreased to U\$\\$6.7 million in Q3/21 from U\$\\$8.5 million in Q2/21 as a result of the additional provision for employee benefit obligation in Q2/21, but slightly increased from U\$\\$6.4 million in Q3/20.

Comparing 9M/21 with 9M/20, total administrative expense slightly decreased from US\$25 million in 9M/20 to US\$23 million in 9M/21 due to legal fee expense in prior year.

Income tax

Operating profit in Q3/21 resulted in income tax in this period which offset with the deferred income tax on operating loss carry forward.

4) Analysis of Financial Position

		US\$ Million				
	30 Sep 2021	31 Dec 2020	+/(-)	% +/(-)		
Assets						
Cash & cash equivalent	42	54	(12)	-22%		
Other current assets	800	586	214	36%		
Non-current assets	803	901	(98)	-11%		
Total assets	1,645	1,541	104	7%		
Liabilities						
Current liabilities	421	356	65	18%		
Non-current liabilities	256	310	(54)	-17%		
Total liabilities	677	666	11	2%		
Equity						
Share capital & retained earnings	968	875	93	11%		
Other component of shareholders' equity						
Total equity	968	875	93	11%		
Total liabilities & equity	1,645	1,541	104	7%		

В	Baht Million	
30 Sep 2021	31 Dec 2020	+/(-)
1,436	1,635	(199)
27,260	17,688	9,573
27,379	27,218	160
56,075	46,541	9,534
14,341	10,740	3,601
8,736	9,374	(639)
23,077	20,114	2,963
36,724	33,874	2,849
(3,726)	(7,447)	3,721
32,998	26,427	6,571
56,075	46,541	9,534



Assets

Total assets as of 30 September 21 increased by US\$104 million (Baht 9,534 million) from 31 December 20.

Total current assets significantly increased US\$202 million (Baht 9,374 million) mainly due to:

- a) an increase in inventory of US\$200 million (Baht 7,975 million) from both higher inventory price due to increasing in oil price and higher crude volume due to timing of crude cargo shipment; and
- b) an increase in trade and other receivables of US\$14 million (Baht 1,572 million) due to higher product selling price in September 21 despite lower sales volume impacted from COVID-19 comparing to December 20; but partly offset by
- c) a decrease in cash and cash equivalent of US\$12 million (Baht 199 million) due to Repayment of long-term borrowings of US\$22.5 million (Baht 742 million) in June and September, partly offset by net cash generated from operating profit with margin exceeding OPEX in 9M/21

On the contrary, non-current assets decreased US\$98 million (but increase Baht 160 million from currency translation) mainly due to a decrease in property, plant and equipment of US\$62 million (but increase Baht 1,005 million from currency translation) due to depreciation expenses in 9M/21, and a decrease in deferred tax asset of US\$24 million (Baht 509 million) from the utilization of operating loss carryforward from profit in 9M/21.

Liabilities

Total liabilities as of 30 September 21 increased US\$11 million (Baht 2,963 million) from 31 December 20. The increment was mainly from:

- a) an increase in trade and other account payables of US\$63 million (Baht 3,158 million) from an increase in crude oil price in September 21 comparing to December 20; but partly offset by
- b) a decrease in L-T borrowing of US\$34 million (but increase Baht 173 million due to translation impact). The decrease was impacted from loan repayment of US\$7.5 million in June and US\$15 million in September, and exchange rate impact on non-US\$ borrowing; and
- c) a decrease in VAT and excise tax payable of US\$10 million (Baht 298 million) and US\$17 million (Baht 421 million), respectively from lower sale volume impacted from less oil demand in September 21 comparing to December 20.

Shareholders' Equity

Shareholders' equity as of 30 September 21 increased US\$93 million (Baht 6,571 million) from 31 December 20 resulted from the net profit in 9M/21.

5) Statement of Cash Flow

9M/2021	US\$ Million
Net cash generated from operating activities	12
Net cash used in investing activities	(1)
Net cash used in financing activities	(23)
Net decrease in cash and cash equivalents	(12)
Cash and cash equivalents at the beginning of the period	54
Adjustments from foreign exchange translation	(0)
Cash and cash equivalents at the end of the period	42

Baht Million
240
(47)
(742)
(549)
1,635
350
1,436



SPRC cash and cash equivalents was US\$42 million at the end of September 2021, decreased from US\$54 million at the end of December 2020.

Details of cash flow activities in 9M/21 are as follow.

- a) Net cash generated from operating activities of US\$12 million (Baht 240 million) which was primarily due to:
 - a. Cash generated from 9M/21 net profit of US\$94 million (Baht 2,892 million) and non-cash items of US\$98 million (Baht 3,072 million);
 - b. Cash generated from operating liabilities of US\$39 million (Baht 1,221 million) mainly from an increase in trade and other payables US\$64 million (Baht 2,044 million) due to the increase in the price of crude oil purchase in September 21 but partly offset by a decrease in other current liabilities of US\$26 million (Baht 822 million) mainly from lower VAT and excise tax payables from lower sales volume in September 21 comparing to December 20. Cash generated was partly offset by
 - c. Cash used in operating assets of US\$219 million (Baht 6,945 million). The increase in oil price also gave rise to an increase in inventory US\$201 million (Baht 6,363 million) and an increase in trade and other receivables of US\$19 million (Baht 614 million) from higher selling price. The increase in inventory was also from higher volume due to less product sale in September 21.
- b) Net cash used in investing activities of US\$1.5 million (Baht 47 million). An ongoing Covid-19 pandemic in 2021 led to the defer of capital expenditure and therefore a small investment in 9M/21.
- c) Net cash used in financing activities of US\$22.5 million (Baht 742 million) for the principal repayment of long-term borrowings in June and September.

6) Financial Ratios

		Q3/21	Q2/21	Q3/20	9M/21	9M/20
Current Ratio	(Time)	2.0	1.9	1.5	2.0	1.5
Net Profit Margin	(%)	0.3	1.9	0.8	2.5	(7.0)
Debt to Equity ratio	(Time)	0.7	0.8	0.7	0.7	0.7
Net Interest-Bearing Debt to Equity ratio	(Time)	0.3	0.2	0.4	0.3	0.4

Note:

Current Ratio	= Current Assets / Current Liabilities	(Time)
Net Profit Margin	= Quarter (Net Profit (Loss) / Total Revenue)	(%)
Debt to Equity Ratio	= Total Liabilities / Total Shareholders' Equity	(Time)
Net Interest Bearing Debt to Equity ratio	= Interest Bearing Debt - Cash / Total Shareholders' Equity	v (Time)