

Table 1 - Reconciliation of Segment Information to Consolidated Financial Information

Millions of Dollars	2018					2019
	Q1	Q2	Q3	Q4	Total	Q1
Sales and other operating revenues:						
Olefins & Polyolefins - Americas	\$ 2,646	\$ 2,542	\$ 2,770	\$ 2,450	\$ 10,408	\$ 2,111
Olefins & Polyolefins - EAI	2,960	2,900	2,643	2,335	10,838	2,535
Intermediates & Derivatives	2,343	2,584	2,509	2,152	9,588	1,894
Advanced Polymer Solutions	838	833	1,039	1,314	4,024	1,339
Refining	2,257	2,569	2,499	1,832	9,157	1,882
Technology	115	182	171	115	583	141
Other/Eliminations	(1,392)	(1,404)	(1,476)	(1,322)	(5,594)	(1,124)
Continuing operations	<u>\$ 9,767</u>	<u>\$ 10,206</u>	<u>\$ 10,155</u>	<u>\$ 8,876</u>	<u>\$ 39,004</u>	<u>\$ 8,778</u>
Operating income (loss):						
Olefins & Polyolefins - Americas	\$ 629	\$ 543	\$ 572	\$ 507	\$ 2,251	\$ 384
Olefins & Polyolefins - EAI	281	245	141	15	682	186
Intermediates & Derivatives	408	569	431	308	1,716	314
Advanced Polymer Solutions	114	112	48	55	329	119
Refining	15	58	38	(139)	(28)	(59)
Technology	46	100	88	50	284	73
Other	1	(1)	(1)	(2)	(3)	—
Continuing operations	<u>\$ 1,494</u>	<u>\$ 1,626</u>	<u>\$ 1,317</u>	<u>\$ 794</u>	<u>\$ 5,231</u>	<u>\$ 1,017</u>
Depreciation and amortization:						
Olefins & Polyolefins - Americas	\$ 106	\$ 109	\$ 111	\$ 116	\$ 442	\$ 115
Olefins & Polyolefins - EAI	56	52	50	50	208	53
Intermediates & Derivatives	73	72	71	71	287	72
Advanced Polymer Solutions	8	9	22	30	69	29
Refining	46	46	45	55	192	43
Technology	10	12	10	11	43	10
Continuing operations	<u>\$ 299</u>	<u>\$ 300</u>	<u>\$ 309</u>	<u>\$ 333</u>	<u>\$ 1,241</u>	<u>\$ 322</u>
EBITDA: ^(a)						
Olefins & Polyolefins - Americas	\$ 756	\$ 671	\$ 704	\$ 631	\$ 2,762	\$ 516
Olefins & Polyolefins - EAI	419	355	262	127	1,163	296
Intermediates & Derivatives	486	642	504	379	2,011	390
Advanced Polymer Solutions	123	121	70	86	400	148
Refining	63	104	84	(84)	167	(15)
Technology	56	113	98	61	328	83
Other	10	4	10	12	36	10
Continuing operations	<u>\$ 1,913</u>	<u>\$ 2,010</u>	<u>\$ 1,732</u>	<u>\$ 1,212</u>	<u>\$ 6,867</u>	<u>\$ 1,428</u>
Capital, turnarounds and IT deferred spending:						
Olefins & Polyolefins - Americas	\$ 242	\$ 311	\$ 247	\$ 279	\$ 1,079	\$ 276
Olefins & Polyolefins - EAI	58	40	58	92	248	64
Intermediates & Derivatives	68	80	100	161	409	179
Advanced Polymer Solutions	15	10	16	21	62	16
Refining	36	45	47	122	250	43
Technology	8	9	12	19	48	17
Other	2	1	2	4	9	4
Continuing operations	<u>\$ 429</u>	<u>\$ 496</u>	<u>\$ 482</u>	<u>\$ 698</u>	<u>\$ 2,105</u>	<u>\$ 599</u>

(a) See Table 7 for the reconciliation of EBITDA to net income.

Table 2 - Selected Segment Operating Information

	2018				2019	
	Q1	Q2	Q3	Q4	Total	Q1
Olefins and Polyolefins - Americas						
<i>Volumes (kilotons)</i>						
Ethylene produced	1,120	1,126	1,126	1,126	4,498	1,096
Propylene produced	280	272	339	371	1,262	332
Polyethylene sold	664	654	657	630	2,605	637
Polypropylene sold	229	231	224	205	889	219
<i>Benchmark Market Prices</i>						
West Texas Intermediate crude oil (USD per barrel)	62.94	67.99	69.71	59.09	64.93	54.90
Light Louisiana Sweet ("LLS") crude oil (USD per barrel)	65.84	73.14	74.27	66.57	69.96	62.38
Houston Ship Channel natural gas (USD per million BTUs)	3.12	2.88	2.97	3.84	3.20	2.86
U.S. weighted average cost of ethylene production (USD per metric ton)	326	341	455	381	376	362
U.S. ethylene (USD per metric ton)	669	582	663	660	644	614
U.S. polyethylene [high density] (USD per metric ton)	1,382	1,389	1,367	1,345	1,371	1,168
U.S. propylene (USD per metric ton)	1,168	1,146	1,323	1,117	1,189	838
U.S. polypropylene [homopolymer] (USD per metric ton)	1,609	1,639	1,830	1,624	1,676	1,323
Olefins and Polyolefins - Europe, Asia, International						
<i>Volumes (kilotons)</i>						
Ethylene produced	461	467	414	301	1,643	408
Propylene produced	276	287	247	176	986	239
Polyethylene sold	656	658	594	576	2,484	678
Polypropylene sold	763	727	659	647	2,796	752
<i>Benchmark Market Prices (€ per metric ton)</i>						
Western Europe weighted average cost of ethylene production	493	637	649	473	563	466
Western Europe ethylene	1,064	1,101	1,135	1,102	1,100	995
Western Europe polyethylene [high density]	1,239	1,216	1,220	1,189	1,216	1,126
Western Europe propylene	923	970	1,041	1,030	991	933
Western Europe polypropylene [homopolymer]	1,308	1,297	1,314	1,280	1,300	1,222
Intermediates and Derivatives						
<i>Volumes (kilotons)</i>						
Propylene oxide and derivatives	362	385	367	334	1,448	363
Intermediate Chemicals:						
Ethylene oxide and derivatives	127	139	146	127	539	120
Styrene monomer	416	449	419	423	1,707	372
Acetyls	243	373	391	357	1,364	296
Oxyfuels and Related Products:						
TBA intermediates	187	183	166	140	676	160
MTBE/ETBE	713	826	827	749	3,115	677
<i>Benchmark Market Margins (USD per metric ton)</i>						
MTBE - Northwest Europe	205	224	189	161	195	126
Advanced Polymer Solutions						
<i>Volumes (kilotons)</i>						
Compounding & Solutions	289	280	360	476	1,405	503
Advanced Polymers	110	123	111	103	447	104
Refining						
<i>Volumes (thousands of barrels per day)</i>						
Heavy crude oil processing rates	252	259	232	184	231	259
<i>Benchmark Market Margins</i>						
Light crude oil - 2-1-1	12.62	15.03	13.15	8.33	12.35	9.92
Light crude oil - Maya differential	8.10	10.91	8.28	2.56	7.50	3.63

Source: LYB and third party consultants

Note: Benchmark market prices for U.S. and Western Europe polyethylene and polypropylene reflect discounted prices. Volumes presented represent third party sales of selected key products.

Table 3 - Unaudited Income Statement Information

Millions of dollars	2018					2019
	Q1	Q2	Q3	Q4	Total	Q1
Sales and other operating revenues	\$ 9,767	\$ 10,206	\$ 10,155	\$ 8,876	\$ 39,004	\$ 8,778
Cost of sales	8,012	8,290	8,499	7,728	32,529	7,446
Selling, general and administrative expenses ^(a)	233	261	309	326	1,129	287
Research and development expenses	28	29	30	28	115	28
Operating income	1,494	1,626	1,317	794	5,231	1,017
Income from equity investments	96	68	89	36	289	64
Interest expense, net	(80)	(76)	(76)	(83)	(315)	(86)
Other income, net ^(b)	24	16	17	49	106	25
Income from continuing operations before income taxes ^(b)	1,534	1,634	1,347	796	5,311	1,020
Provision for (benefit from) income taxes ^(c)	303	(21)	232	99	613	203
Income from continuing operations ^(d)	1,231	1,655	1,115	697	4,698	817
Loss from discontinued operations, net of tax	—	(1)	(2)	(5)	(8)	—
Net income ^(d)	1,231	1,654	1,113	692	4,690	817
Dividends on A. Schulman Special Stock	—	—	—	(2)	(2)	(2)
Net income attributable to Company shareholders ^(d)	\$ 1,231	\$ 1,654	\$ 1,113	\$ 690	\$ 4,688	\$ 815

- (a) The third quarter of 2018 includes pre-tax charges of \$53 million of acquisition-related transaction and integration costs associated with our acquisition of A. Schulman. The fourth quarter of 2018 and first quarter of 2019 include integration costs of \$20 million and \$16 million, respectively.
- (b) Includes a pre-tax gain of \$36 million in the fourth quarter of 2018 on the sale of our carbon black subsidiary in France.
- (c) The second quarter of 2018 includes a \$346 million benefit related to \$288 million of previously unrecognized tax benefits and the release of \$58 million of associated accrued interest.
- (d) The third quarter of 2018, fourth quarter of 2018 and first quarter of 2019 include after-tax charges of \$42 million, \$15 million and \$12 million, respectively, for acquisition-related transaction and integration costs associated with our acquisition of A. Schulman.

Table 4 - Charges (Benefits) Included in Net Income

Millions of Dollars (except share data)	2018					2019
	Q1	Q2	Q3	Q4	Total	Q1
Pretax charges (benefits):						
Tax benefit from release of previously unrecognized tax benefits and associated accrued interest	\$ —	\$ (346)	\$ —	\$ —	\$ (346)	\$ —
Acquisition-related costs - A. Schulman	—	—	53	20	73	16
Total pretax charges (benefits)	—	(346)	53	20	(273)	16
Provision for (benefit from) income taxes related to these items	—	—	(11)	(5)	(16)	(4)
After-tax effect of net charges (benefits)	\$ —	\$ (346)	\$ 42	\$ 15	\$ (289)	\$ 12
Effect on diluted earnings per share	\$ —	\$ 0.88	\$ (0.11)	\$ (0.04)	\$ 0.74	\$ (0.03)

Table 5 - Unaudited Cash Flow Information

<u>Millions of dollars</u>	<u>2018</u>					<u>2019</u>
	<u>Q1</u>	<u>Q2</u>	<u>Q3</u>	<u>Q4</u>	<u>Total</u>	<u>Q1</u>
Net cash provided by operating activities	\$ 1,006	\$ 1,727	\$ 1,441	\$ 1,297	\$ 5,471	\$ 657
Net cash used in investing activities ^(a)	(189)	(400)	(2,312)	(658)	(3,559)	(178)
Net cash used in financing activities	(520)	(745)	(977)	(766)	(3,008)	(521)

(a) The third quarter of 2018 includes a cash outflow of \$1,776 million for the acquisition of A. Schulman, net of cash acquired and a liability deemed as a component of the purchase price.

Table 6 - Unaudited Balance Sheet Information

Millions of dollars	March 31, 2018	June 30, 2018	September 30, 2018	December 31, 2018	March 31, 2019
Cash and cash equivalents	\$ 1,840	\$ 2,384	\$ 521	\$ 332	\$ 339
Restricted cash	—	2	11	69	19
Short-term investments	1,042	933	944	892	423
Accounts receivable, net	3,859	3,889	4,087	3,503	3,680
Inventories	4,257	4,096	4,596	4,515	4,496
Prepaid expenses and other current assets	1,070	1,045	1,224	1,255	1,329
Total current assets	<u>12,068</u>	<u>12,349</u>	<u>11,383</u>	<u>10,566</u>	<u>10,286</u>
Operating lease assets ^(a)	—	—	—	—	1,534
Property, plant and equipment, net	11,249	11,310	12,022	12,477	12,797
Investments and long-term receivables:					
Investment in PO joint ventures	424	429	440	469	464
Equity investments	1,767	1,599	1,688	1,611	1,650
Other investments and long-term receivables	22	22	20	23	23
Goodwill	578	562	1,819	1,814	1,803
Intangible assets, net	567	528	982	965	945
Other assets	221	224	342	353	387
Total assets	<u>\$ 26,896</u>	<u>\$ 27,023</u>	<u>\$ 28,696</u>	<u>\$ 28,278</u>	<u>\$ 29,889</u>
Current maturities of long-term debt	\$ 5	\$ 974	\$ 984	\$ 5	\$ 5
Short-term debt	77	76	214	885	2,377
Accounts payable	3,010	3,095	3,555	3,087	3,187
Accrued liabilities ^(a)	1,506	1,306	1,489	1,536	1,443
Total current liabilities	<u>4,598</u>	<u>5,451</u>	<u>6,242</u>	<u>5,513</u>	<u>7,012</u>
Long-term debt	8,531	7,490	7,471	8,497	7,522
Operating lease liabilities ^(a)	—	—	—	—	1,282
Other liabilities ^(a)	2,350	1,805	2,017	1,897	1,830
Deferred income taxes	1,688	1,674	1,774	1,975	1,967
Commitments and contingencies					
Redeemable non-controlling interests	—	—	123	116	116
Stockholders' equity	9,728	10,602	11,044	10,257	10,138
Non-controlling interests	1	1	25	23	22
Total liabilities, redeemable non-controlling interests and equity	<u>\$ 26,896</u>	<u>\$ 27,023</u>	<u>\$ 28,696</u>	<u>\$ 28,278</u>	<u>\$ 29,889</u>

(a) In the first quarter of 2019, we adopted ASC 842, *Leases* and related amendments using the modified retrospective method and recognized Operating lease assets of \$1,533 million and Operating lease liabilities of \$1,553 million. We also reduced Accrued liabilities by \$2 million and Other liabilities by \$18 million. Comparative financial information has not been restated and continues to be reported under the accounting standards in effect for those periods.

Non-GAAP Reconciliations

Table 7 - Reconciliation of Net Income to EBITDA

<u>Millions of dollars</u>	Three Months Ended				Year Ended	Three Months Ended	Year Ended	Three Months Ended		Last Twelve Months
	March 31, 2017	June 30, 2017	September 30, 2017	December 31, 2017	December 31, 2017	March 31, 2018	December 31, 2017	March 31, 2017	March 31, 2018	March 31, 2018
Net income(a)(b)	\$ 797	\$ 1,130	\$ 1,056	\$ 1,894	\$ 4,877	\$ 1,231	\$ 4,877	\$ 797	\$ 1,231	\$ 5,311
Loss from discontinued operations, net of tax	8	4	2	4	18	—	18	8	—	10
Income from continuing operations(a)(b)	805	1,134	1,058	1,898	4,895	1,231	4,895	805	1,231	5,321
Provision for (benefit from) income taxes(b)	315	459	380	(556)	598	303	598	315	303	586
Depreciation and amortization	296	286	294	298	1,174	299	1,174	296	299	1,177
Interest expense, net(c)	201	91	89	86	467	80	467	201	80	346
EBITDA(d)	<u>\$ 1,617</u>	<u>\$ 1,970</u>	<u>\$ 1,821</u>	<u>\$ 1,726</u>	<u>\$ 7,134</u>	<u>\$ 1,913</u>	<u>\$ 7,134</u>	<u>\$ 1,617</u>	<u>\$ 1,913</u>	<u>\$ 7,430</u>

<u>Millions of dollars</u>	Three Months Ended				Year Ended	Three Months Ended	Year Ended	Three Months Ended		Last Twelve Months
	March 31, 2018	June 30, 2018	September 30, 2018	December 31, 2018	December 31, 2018	March 31, 2019	December 31, 2018	March 31, 2018	March 31, 2019	March 31, 2019
Net income(a)(b)	\$ 1,231	\$ 1,654	\$ 1,113	\$ 692	\$ 4,690	\$ 817	\$ 4,690	\$ 1,231	\$ 817	\$ 4,276
Loss from discontinued operations, net of tax	—	1	2	5	8	—	8	—	—	8
Income from continuing operations(a)(b)	1,231	1,655	1,115	697	4,698	817	4,698	1,231	817	4,284
Provision for (benefit from) income taxes(b)	303	(21)	232	99	613	203	613	303	203	513
Depreciation and amortization	299	300	309	333	1,241	322	1,241	299	322	1,264
Interest expense, net	80	76	76	83	315	86	315	80	86	321
EBITDA(d)	<u>\$ 1,913</u>	<u>\$ 2,010</u>	<u>\$ 1,732</u>	<u>\$ 1,212</u>	<u>\$ 6,867</u>	<u>\$ 1,428</u>	<u>\$ 6,867</u>	<u>\$ 1,913</u>	<u>\$ 1,428</u>	<u>\$ 6,382</u>

Note: Last twelve months March 31, 2019 and 2018, respectively, is calculated as years ended December 31, 2018 and 2017 plus three months ended March 31, 2019 and 2018 minus three months ended March 31, 2018 and 2017.

- (a) The third quarter of 2017 includes a \$103 million after-tax gain on the sale of our interest in Geosel. The third quarter of 2018, fourth quarter of 2018 and first quarter of 2019 include after-tax charges of \$42 million, \$15 million and \$12 million, respectively, for acquisition-related transaction and integration costs associated with our acquisition of A. Schulman.
- (b) The fourth quarter of 2017 includes an \$819 million non-cash tax benefit related to the lower federal income tax rate resulting from the U.S. Tax Cuts and Jobs Act enacted in December 2017. The second quarter of 2018 includes a \$346 million non-cash benefit from the release of unrecognized tax benefits and associated accrued interest.
- (c) The first quarter of 2017 includes pre-tax charges of \$113 million related to the redemption of \$1,000 million aggregate principal amount of our then existing 5% Senior Notes due 2019.
- (d) The third quarter of 2017 includes a pre-tax gain of \$108 million on the sale of our interest in Geosel. EBITDA for the third quarter of 2018, fourth quarter of 2018 and first quarter of 2019 include pre-tax charges of \$53 million, \$20 million and \$16 million, respectively, for acquisition-related transaction and integration costs associated with our acquisition of A. Schulman.

Table 8 - EBITDA by Segment

<u>Millions of dollars</u>	Three Months Ended				Year Ended	Three Months Ended	Year Ended	Three Months Ended		Last Twelve Months
	March 31, 2017	June 30, 2017	September 30, 2017	December 31, 2017	December 31, 2017	March 31, 2018	December 31, 2017	March 31, 2017	March 31, 2018	March 31, 2018
EBITDA:										
Olefins & Polyolefins - Americas	\$ 706	\$ 833	\$ 591	\$ 769	\$ 2,899	\$ 756	\$ 2,899	\$ 706	\$ 756	\$ 2,949
Olefins & Polyolefins - EAI	442	597	599	289	1,927	419	1,927	442	419	1,904
Intermediates & Derivatives	339	339	402	410	1,490	486	1,490	339	486	1,637
Advanced Polymer Solutions	104	128	124	82	438	123	438	104	123	457
Refining	(30)	25	58	104	157	63	157	(30)	63	250
Technology	60	48	47	68	223	56	223	60	56	219
Other	(4)	—	—	4	—	10	—	(4)	10	14
Continuing operations	<u>\$ 1,617</u>	<u>\$ 1,970</u>	<u>\$ 1,821</u>	<u>\$ 1,726</u>	<u>\$ 7,134</u>	<u>\$ 1,913</u>	<u>\$ 7,134</u>	<u>\$ 1,617</u>	<u>\$ 1,913</u>	<u>\$ 7,430</u>

<u>Millions of dollars</u>	Three Months Ended				Year Ended	Three Months Ended	Year Ended	Three Months Ended		Last Twelve Months
	March 31, 2018	June 30, 2018	September 30, 2018	December 31, 2018	December 31, 2018	March 31, 2019	December 31, 2018	March 31, 2018	March 31, 2019	March 31, 2019
EBITDA:										
Olefins & Polyolefins - Americas	\$ 756	\$ 671	\$ 704	\$ 631	\$ 2,762	\$ 516	\$ 2,762	\$ 756	\$ 516	\$ 2,522
Olefins & Polyolefins - EAI	419	355	262	127	1,163	296	1,163	419	296	1,040
Intermediates & Derivatives	486	642	504	379	2,011	390	2,011	486	390	1,915
Advanced Polymer Solutions	123	121	70	86	400	148	400	123	148	425
Refining	63	104	84	(84)	167	(15)	167	63	(15)	89
Technology	56	113	98	61	328	83	328	56	83	355
Other	10	4	10	12	36	10	36	10	10	36
Continuing Operations	<u>\$ 1,913</u>	<u>\$ 2,010</u>	<u>\$ 1,732</u>	<u>\$ 1,212</u>	<u>\$ 6,867</u>	<u>\$ 1,428</u>	<u>\$ 6,867</u>	<u>\$ 1,913</u>	<u>\$ 1,428</u>	<u>\$ 6,382</u>

Table 9 - Components of Cash and Liquid Investments and Total Liquidity

<u>Millions of dollars</u>	<u>Years Ended December 31,</u>				<u>Three Months</u>
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>Ended</u>
					<u>March 31,</u>
					<u>2019</u>
Cash and cash equivalents and restricted cash	\$ 931	\$ 878	\$ 1,528	\$ 401	\$ 358
Short-term investments	1,064	1,147	1,307	892	423
Repurchase agreements	387	369	570	544	534
Cash and liquid investments	2,382	2,394	3,405	1,837	1,315
Availability under Three-Year Term Loan	—	—	—	—	4,000
Availability under Senior Revolving Credit Facility	1,631	1,973	2,500	1,688	2,240
Availability under U.S. Receivables Facility	748	737	900	829	797
Availability under European Receivables Facility	483	—	—	—	—
Total liquidity	\$ 5,244	\$ 5,104	\$ 6,805	\$ 4,354	\$ 8,352

Table 10 - Reconciliation of Free Operating Cash Flow to Net Cash Provided by Operating Activities

<u>Millions of dollars</u>	<u>Years Ended December 31,</u>				<u>Three Months Ended</u>		<u>Year Ended</u>	<u>Three Months Ended</u>		<u>Last Twelve Months</u>
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>March 31, 2018</u>	<u>March 31, 2019</u>	<u>December 31, 2018</u>	<u>March 31, 2018</u>	<u>March 31, 2019</u>	<u>March 31, 2019</u>
Free operating cash flow	\$ 5,027	\$ 4,497	\$ 4,187	\$ 4,419	\$ 759	\$ 426	\$ 4,419	\$ 759	\$ 426	\$ 4,086
Add:										
Sustaining (maintenance and HSE) capital expenditures	815	1,109	1,019	1,052	247	231	1,052	247	231	1,036
Net cash provided by operating activities	<u>\$ 5,842</u>	<u>\$ 5,606</u>	<u>\$ 5,206</u>	<u>\$ 5,471</u>	<u>\$ 1,006</u>	<u>\$ 657</u>	<u>\$ 5,471</u>	<u>\$ 1,006</u>	<u>\$ 657</u>	<u>\$ 5,122</u>

Table 11 - Schedule of Spending for Dividends and Share Repurchases

<u>Millions of Dollars</u>	Three Months Ended				Year Ended	Three Months Ended
	March 31, 2018	June 30, 2018	September 30, 2018	December 31, 2018	December 31, 2018	March 31, 2019
Dividends	\$ 395	\$ 392	\$ 389	\$ 378	\$ 1,554	\$ 372
Repurchases of ordinary shares	119	351	331	1,053	1,854	512
Total	<u>\$ 514</u>	<u>\$ 743</u>	<u>\$ 720</u>	<u>\$ 1,431</u>	<u>\$ 3,408</u>	<u>\$ 884</u>
