

Table 1 - Reconciliation of Segment Information to Consolidated Financial Information

Millions of dollars	2019					2020		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Total
Sales and other operating revenues:								
Olefins & Polyolefins - Americas	\$ 2,111	\$ 2,114	\$ 2,137	\$ 2,073	\$ 8,435	\$ 1,792	\$ 1,433	\$ 3,225
Olefins & Polyolefins - EAI	2,535	2,505	2,309	2,155	9,504	2,224	1,702	3,926
Intermediates & Derivatives	1,894	2,062	2,046	1,832	7,834	1,770	1,157	2,927
Advanced Polymer Solutions	1,339	1,258	1,186	1,067	4,850	1,096	705	1,801
Refining	1,882	2,180	2,134	2,055	8,251	1,448	919	2,367
Technology	141	173	146	203	663	122	177	299
Other/Eliminations	(1,124)	(1,244)	(1,236)	(1,206)	(4,810)	(958)	(547)	(1,505)
Continuing operations	\$ 8,778	\$ 9,048	\$ 8,722	\$ 8,179	\$ 34,727	\$ 7,494	\$ 5,546	\$ 13,040
Operating income (loss):								
Olefins & Polyolefins - Americas	\$ 384	\$ 504	\$ 524	\$ 365	\$ 1,777	\$ 238	\$ 107	\$ 345
Olefins & Polyolefins - EAI	186	226	202	59	673	135	81	216
Intermediates & Derivatives	314	372	314	249	1,249	131	24	155
Advanced Polymer Solutions	119	91	67	13	290	70	(83)	(13)
Refining	(59)	(110)	(52)	(19)	(240)	(314)	116	(198)
Technology	73	96	73	132	374	47	104	151
Other	—	(2)	(4)	(1)	(7)	(3)	(10)	(13)
Continuing operations	\$ 1,017	\$ 1,177	\$ 1,124	\$ 798	\$ 4,116	\$ 304	\$ 339	\$ 643
Depreciation and amortization:								
Olefins & Polyolefins - Americas	\$ 115	\$ 117	\$ 118	\$ 120	\$ 470	\$ 124	\$ 133	\$ 257
Olefins & Polyolefins - EAI	53	52	51	52	208	53	53	106
Intermediates & Derivatives	72	74	75	74	295	70	74	144
Advanced Polymer Solutions	29	30	32	42	133	44	39	83
Refining	43	44	41	41	169	42	49	91
Technology	10	11	10	6	37	9	8	17
Continuing operations	\$ 322	\$ 328	\$ 327	\$ 335	\$ 1,312	\$ 342	\$ 356	\$ 698
EBITDA:^(a)								
Olefins & Polyolefins - Americas	\$ 516	\$ 635	\$ 653	\$ 498	\$ 2,302	\$ 366	\$ 248	\$ 614
Olefins & Polyolefins - EAI	296	331	291	144	1,062	189	185	374
Intermediates & Derivatives	390	448	390	329	1,557	203	101	304
Advanced Polymer Solutions	148	120	102	54	424	113	(44)	69
Refining	(15)	(66)	(6)	22	(65)	(272)	165	(107)
Technology	83	107	83	138	411	56	112	168
Other	10	4	—	(13)	1	(9)	(7)	(16)
Continuing operations	\$ 1,428	\$ 1,579	\$ 1,513	\$ 1,172	\$ 5,692	\$ 646	\$ 760	\$ 1,406
Capital, turnarounds and IT deferred spending:								
Olefins & Polyolefins - Americas	\$ 276	\$ 257	\$ 295	\$ 271	\$ 1,099	\$ 204	\$ 190	\$ 394
Olefins & Polyolefins - EAI	64	39	45	65	213	42	34	76
Intermediates & Derivatives	179	238	317	330	1,064	353	305	658
Advanced Polymer Solutions	16	11	14	18	59	13	10	23
Refining	43	53	41	12	149	16	21	37
Technology	17	17	26	34	94	30	26	56
Other	4	7	4	1	16	2	2	4
Continuing operations	\$ 599	\$ 622	\$ 742	\$ 731	\$ 2,694	\$ 660	\$ 588	\$ 1,248

(a) See Table 7 for the reconciliation of net income to EBITDA, including and excluding LCM.

Table 2 - Selected Segment Operating Information

	2019					2020		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Total
Olefins and Polyolefins - Americas								
<i>Volumes (kilotons)</i>								
Ethylene produced	1,096	1,110	944	1,143	4,293	1,014	872	1,886
Propylene produced	332	308	367	336	1,343	325	324	649
Polyethylene sold	637	634	673	644	2,588	689	665	1,354
Polypropylene sold	219	232	247	207	905	216	228	444
<i>Benchmark Market Prices</i>								
West Texas Intermediate crude oil (USD per barrel)	54.90	59.80	56.40	56.98	57.02	45.97	27.80	36.89
Brent crude oil (USD per barrel)	63.90	68.32	62.00	62.51	64.18	50.95	33.27	42.11
Houston Ship Channel natural gas (USD per million BTUs)	2.86	2.46	2.26	2.24	2.46	1.82	1.64	1.73
U.S. weighted average cost of ethylene production (USD per metric ton)	362	262	209	260	273	198	265	231
U.S. ethylene (USD per metric ton)	614	535	584	632	591	525	507	516
U.S. polyethylene [high density] (USD per metric ton)	1,168	1,235	1,146	1,036	1,146	970	882	926
U.S. propylene (USD per metric ton)	838	823	845	775	820	683	577	630
U.S. polypropylene [homopolymer] (USD per metric ton)	1,323	1,308	1,308	1,224	1,291	1,014	930	972
Olefins and Polyolefins - Europe, Asia, International								
<i>Volumes (kilotons)</i>								
Ethylene produced	408	456	448	430	1,742	468	413	881
Propylene produced	239	274	271	249	1,033	272	243	515
Polyethylene sold	678	562	619	591	2,450	677	698	1,375
Polypropylene sold	752	729	718	722	2,921	729	742	1,471
<i>Benchmark Market Prices (€ per metric ton)</i>								
Western Europe weighted average cost of ethylene production	466	493	433	576	492	352	236	294
Western Europe ethylene	995	1,065	993	973	1,007	953	673	813
Western Europe polyethylene [high density]	1,126	1,191	1,125	1,097	1,135	1,044	922	983
Western Europe propylene	933	983	893	852	915	838	617	728
Western Europe polypropylene [homopolymer]	1,222	1,268	1,185	1,136	1,203	1,084	975	1,029
Intermediates and Derivatives								
<i>Volumes Sold (kilotons)</i>								
Propylene oxide and derivatives	363	343	353	336	1,395	366	281	647
Intermediate Chemicals:								
Ethylene oxide and derivatives	120	133	133	118	504	112	115	227
Styrene monomer	372	392	408	306	1,478	376	391	767
Acetils	296	358	308	283	1,245	216	214	430
Oxvfuels and Related Products:								
TBA intermediates	160	177	160	154	651	156	103	259
MTBE/ETBE	677	819	884	805	3,185	835	747	1,582
<i>Benchmark Market Margins (USD per metric ton)</i>								
MTBE - Northwest Europe	126	295	374	282	266	165	68	113
Advanced Polymer Solutions								
<i>Volumes Sold (kilotons)</i>								
Compounding & Solutions	503	475	452	422	1,852	424	252	676
Advanced Polymers	104	105	106	91	406	105	103	208
Refining								
<i>Volumes (thousands of barrels per day)</i>								
Heavy crude oil processing rates	259	261	264	267	263	226	237	231
<i>Benchmark Market Margins</i>								
Brent - 2-1-1	8.40	12.74	12.75	9.87	10.94	7.43	4.42	5.87
Brent - Maya differential	5.12	6.26	5.36	9.59	6.58	9.79	8.85	9.32

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	2019					2020		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Total
Sales and other operating revenues	\$ 8,778	\$ 9,048	\$ 8,722	\$ 8,179	\$ 34,727	\$ 7,494	\$ 5,546	\$ 13,040
Cost of sales ^(a)	7,446	7,542	7,269	7,044	29,301	6,868	4,894	11,762
Selling, general and administrative expenses ^(b)	287	302	303	307	1,199	295	288	583
Research and development expenses	28	27	26	30	111	27	25	52
Operating income	1,017	1,177	1,124	798	4,116	304	339	643
Income from equity investments	64	64	51	46	225	—	61	61
Interest expense, net	(86)	(76)	(81)	(85)	(328)	(86)	(121)	(207)
Other income, net	25	10	11	(7)	39	—	4	4
Income from continuing operations before income taxes	1,020	1,175	1,105	752	4,052	218	283	501
Provision for (benefit from) income taxes ^(c)	203	169	136	140	648	75	(32)	43
Income from continuing operations ^(d)	817	1,006	969	612	3,404	143	315	458
Loss (income) from discontinued operations, net of tax	—	(3)	(4)	—	(7)	1	(1)	—
Net income ^(d)	817	1,003	965	612	3,397	144	314	458
Dividends on redeemable non-controlling interests	(2)	(1)	(2)	(2)	(7)	(2)	(1)	(3)
Net income attributable to Company shareholders ^(d)	\$ 815	\$ 1,002	\$ 963	\$ 610	\$ 3,390	\$ 142	\$ 313	\$ 455

(a) The third quarter of 2019, fourth quarter of 2019, first quarter of 2020, and second quarter of 2020 include pre-tax charges of \$3 million, \$20 million, \$3 million and \$1 million, respectively, for integration costs associated with our 2018 acquisition of A. Schulman.

(b) The first quarter of 2019, second quarter of 2019, third quarter of 2019, fourth quarter of 2019, first quarter of 2020, and second quarter of 2020 include pre-tax charges of \$16 million, \$19 million, \$40 million, \$18 million, \$11 million and \$15 million, respectively, for integration costs associated with our 2018 acquisition of A. Schulman.

(c) The third quarter of 2019 includes a non-cash benefit of \$85 million from the previously unrecognized tax benefits and release of associated accrued interest.

(d) The first quarter of 2019, second quarter of 2019, third quarter of 2019, fourth quarter of 2019, first quarter of 2020, and second quarter 2020 include after-tax charges of \$12 million, \$15 million, \$33 million, \$29 million, \$13 million and \$11 million, respectively, for integration costs associated with our 2018 acquisition of A. Schulman.

Table 4 - Charges (Benefits) Included in Net Income

Millions of dollars (except share data)	2019				2020	
	Q1	Q2	Q3	Q4	Q1	Q2
Pretax charges (benefits):						
LCM charges (benefits)	\$ —	\$ —	\$ —	\$ 33	\$ 419	\$ (96)
Tax benefit from release of previously unrecognized tax benefits and associated accrued interest	—	—	(85)	—	—	—
Acquisition-related costs - A. Schulman	16	19	43	38	14	16
Total pretax charges (benefits)	16	19	(42)	71	433	(80)
Provision for (benefit from) income taxes related to these items	(4)	(4)	(10)	(17)	(69)	3
After-tax effect of net charges (benefits)	<u>\$ 12</u>	<u>\$ 15</u>	<u>\$ (52)</u>	<u>\$ 54</u>	<u>\$ 364</u>	<u>\$ (77)</u>
Effect on diluted earnings per share:						
LCM (charges) benefits	\$ —	\$ —	\$ —	\$ (0.07)	\$ (1.05)	\$ 0.26
Tax benefit from release of previously unrecognized tax benefits and associated accrued interest	—	—	0.25	—	—	—
Acquisition-related costs - A. Schulman	(0.03)	(0.04)	(0.10)	(0.08)	(0.04)	(0.03)
Total	<u>\$ (0.03)</u>	<u>\$ (0.04)</u>	<u>\$ 0.15</u>	<u>\$ (0.15)</u>	<u>\$ (1.09)</u>	<u>\$ 0.23</u>

Table 5 - Unaudited Cash Flow Information

Millions of dollars	2019					2020		
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Total
Net cash provided by operating activities	\$ 657	\$ 1,186	\$ 1,876	\$ 1,242	\$ 4,961	\$ 542	\$ 1,292	\$ 1,834
Net cash used in investing activities	(178)	(278)	(754)	(425)	(1,635)	(663)	(1,064)	(1,727)
Net cash (used in) provided by financing activities	(521)	39	(1,900)	(453)	(2,835)	884	684	1,568

Table 6 - Unaudited Balance Sheet Information

Millions of dollars	March 31, 2019	June 30, 2019	September 30, 2019	December 31, 2019	March 31, 2020	June 30, 2020
Cash and cash equivalents	\$ 339	\$ 1,279	\$ 476	\$ 858	\$ 1,596	\$ 2,552
Restricted cash	19	29	36	30	37	26
Short-term investments	423	52	53	196	199	651
Accounts receivable, net	3,680	3,758	3,469	3,102	3,043	2,588
Inventories	4,496	4,685	4,446	4,588	3,973	3,768
Prepaid expenses and other current assets	1,329	1,285	1,150	736	844	892
Total current assets	10,286	11,088	9,630	9,510	9,692	10,477
Operating lease assets	1,534	1,560	1,510	1,468	1,453	1,425
Property, plant and equipment, net	12,797	13,285	13,669	14,130	14,387	14,526
Investments and long-term receivables:						
Investment in PO joint ventures	464	489	486	504	497	523
Equity investments	1,650	1,599	1,609	1,602	1,539	1,559
Other investments and long-term receivables	23	24	24	22	22	23
Goodwill	1,803	1,848	1,848	1,891	1,800	1,830
Intangible assets, net	945	892	841	869	808	756
Other assets	387	386	497	439	902	422
Total assets	<u>\$ 29,889</u>	<u>\$ 31,171</u>	<u>\$ 30,114</u>	<u>\$ 30,435</u>	<u>\$ 31,100</u>	<u>\$ 31,541</u>
Current maturities of long-term debt	\$ 5	\$ 4	\$ 4	\$ 3	\$ 3	\$ 3
Short-term debt	2,377	2,812	2,438	445	1,493	659
Accounts payable	3,187	3,115	3,201	2,928	2,638	2,194
Accrued liabilities	1,443	1,607	1,745	1,822	1,387	1,579
Total current liabilities	7,012	7,538	7,388	5,198	5,521	4,435
Long-term debt	7,522	7,586	9,628	11,614	12,159	13,674
Operating lease liabilities	1,282	1,304	1,257	1,216	1,192	1,160
Other liabilities	1,830	1,876	1,801	2,213	2,808	2,968
Deferred income taxes	1,967	2,008	2,018	2,015	1,961	1,811
Redeemable non-controlling interests	116	116	116	116	116	116
Shareholders' equity	10,138	10,721	7,888	8,044	7,324	7,358
Non-controlling interests	22	22	18	19	19	19
Total liabilities, redeemable non-controlling interests and equity	<u>\$ 29,889</u>	<u>\$ 31,171</u>	<u>\$ 30,114</u>	<u>\$ 30,435</u>	<u>\$ 31,100</u>	<u>\$ 31,541</u>

Non-GAAP Reconciliations

Table 7 - Reconciliation of Net Income to EBITDA, including and excluding LCM

Millions of dollars	Three Months Ended				Year Ended December 31, 2019	Three Months Ended		Year Ended December 31, 2019	Six Months Ended		Last Twelve Months June 30, 2020
	March 31, 2019	June 30, 2019	September 30, 2019	December 31, 2019		March 31, 2020	June 30, 2020		June 30, 2019	June 30, 2020	
	\$ 817	\$ 1,003	\$ 965	\$ 612	\$ 3,397	\$ 144	\$ 314	\$ 3,397	\$ 1,820	\$ 458	\$ 2,035
Net income ^{(a)(b)}	\$ 817	\$ 1,003	\$ 965	\$ 612	\$ 3,397	\$ 144	\$ 314	\$ 3,397	\$ 1,820	\$ 458	\$ 2,035
add: LCM charges (benefits), after-tax	—	—	—	25	25	351	(88)	25	—	263	288
Net income excluding LCM charges (benefits)	817	1,003	965	637	3,422	495	226	3,422	1,820	721	2,323
less: LCM (charges) benefits, after-tax	—	—	—	(25)	(25)	(351)	88	(25)	—	(263)	(288)
Net income	817	1,003	965	612	3,397	144	314	3,397	1,820	458	2,035
Loss (income) from discontinued operations, net of tax	—	3	4	—	7	(1)	1	7	3	—	4
Income from continuing operations ^{(a)(b)}	817	1,006	969	612	3,404	143	315	3,404	1,823	458	2,039
Provision for (benefit from) income taxes ^(b)	203	169	136	140	648	75	(32)	648	372	43	319
Depreciation and amortization	322	328	327	335	1,312	342	356	1,312	650	698	1,360
Interest expense, net	86	76	81	85	328	86	121	328	162	207	373
add: LCM charges (benefits), pre-tax	—	—	—	33	33	419	(96)	33	—	323	356
EBITDA excluding LCM charges (benefits)	1,428	1,579	1,513	1,205	5,725	1,065	664	5,725	3,007	1,729	4,447
less: LCM (charges) benefits, pre-tax	—	—	—	(33)	(33)	(419)	96	(33)	—	(323)	(356)
EBITDA^(c)	\$ 1,428	\$ 1,579	\$ 1,513	\$ 1,172	\$ 5,692	\$ 646	\$ 760	\$ 5,692	\$ 3,007	\$ 1,406	\$ 4,091

Note: Last twelve months June 30, 2020 is calculated as year ended December 31, 2019 plus six months ended June 30, 2020, minus six months ended June 30, 2019.

(a) The first quarter of 2019, second quarter of 2019, third quarter of 2019, fourth quarter of 2019, first quarter of 2020 and second quarter of 2020 include after-tax charges of \$12 million, \$15 million, \$33 million, \$29 million, \$13 million and \$11 million, respectively, for integration costs associated with our 2018 acquisition of A. Schulman.

(b) The third quarter of 2019 includes a non-cash benefit of \$85 million, from the release of unrecognized tax benefits and associated accrued interest.

(c) EBITDA for the first quarter of 2019, second quarter of 2019, third quarter of 2019, fourth quarter of 2019, first quarter of 2020 and second quarter of 2020 include pre-tax charges of \$16 million, \$19 million, \$43 million, \$38 million, \$14 million and \$16 million, respectively, for integration costs associated with our 2018 acquisition of A. Schulman.

Table 8 - Reconciliation of EBITDA to EBITDA Excluding LCM by Segment

	Three Months Ended				Year Ended December 31, 2019	Three Months Ended		Six Months Ended	
	March 31, 2019	June 30, 2019	September 30, 2019	December 31, 2019		March 31, 2020	June 30, 2020	June 30, 2020	
EBITDA:									
Olefins & Polyolefins - Americas	\$ 516	\$ 635	\$ 653	\$ 498	\$ 2,302	\$ 366	\$ 248	\$ 614	
Olefins & Polyolefins - EAI	296	331	291	144	1,062	189	185	374	
Intermediates & Derivatives	390	448	390	329	1,557	203	101	304	
Advanced Polymer Solutions	148	120	102	54	424	113	(44)	69	
Refining	(15)	(66)	(6)	22	(65)	(272)	165	(107)	
Technology	83	107	83	138	411	56	112	168	
Other	10	4	—	(13)	1	(9)	(7)	(16)	
Continuing Operations	<u>\$ 1,428</u>	<u>\$ 1,579</u>	<u>\$ 1,513</u>	<u>\$ 1,172</u>	<u>\$ 5,692</u>	<u>\$ 646</u>	<u>\$ 760</u>	<u>\$ 1,406</u>	
Add: LCM charges (benefits), pre-tax:									
Olefins & Polyolefins - Americas	\$ —	\$ —	\$ —	\$ 25	\$ 25	\$ 111	\$ (38)	\$ 73	
Olefins & Polyolefins - EAI	—	—	—	—	—	36	34	70	
Intermediates & Derivatives	—	—	—	—	—	78	20	98	
Advanced Polymer Solutions	—	—	—	8	8	2	67	69	
Refining	—	—	—	—	—	192	(179)	13	
Technology	—	—	—	—	—	—	—	—	
Other	—	—	—	—	—	—	—	—	
Continuing Operations	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 33</u>	<u>\$ 33</u>	<u>\$ 419</u>	<u>\$ (96)</u>	<u>\$ 323</u>	
EBITDA excluding LCM charges (benefits)									
Olefins & Polyolefins - Americas	\$ 516	\$ 635	\$ 653	\$ 523	\$ 2,327	\$ 477	\$ 210	\$ 687	
Olefins & Polyolefins - EAI	296	331	291	144	1,062	225	219	444	
Intermediates & Derivatives	390	448	390	329	1,557	281	121	402	
Advanced Polymer Solutions	148	120	102	62	432	115	23	138	
Refining	(15)	(66)	(6)	22	(65)	(80)	(14)	(94)	
Technology	83	107	83	138	411	56	112	168	
Other	10	4	—	(13)	1	(9)	(7)	(16)	
Continuing Operations	<u>\$ 1,428</u>	<u>\$ 1,579</u>	<u>\$ 1,513</u>	<u>\$ 1,205</u>	<u>\$ 5,725</u>	<u>\$ 1,065</u>	<u>\$ 664</u>	<u>\$ 1,729</u>	

Table 9 - Reconciliation of Diluted EPS to Diluted EPS Excluding LCM

	Three Months Ended		Six Months Ended		Three Months Ended		Six Months Ended					
	March 31, 2019		June 30, 2019		June 30, 2019		March 31, 2020		June 30, 2020			
	\$	2.19	\$	2.70	\$	4.88	\$	0.42	\$	0.94	\$	1.36
Diluted earnings per share												
Add:												
LCM charges (benefits)		—		—		—		1.05		(0.26)		0.79
Diluted earnings per share excluding LCM	\$	2.19	\$	2.70	\$	4.88	\$	1.47	\$	0.68	\$	2.15

Table 10 - Components of Cash and Liquid Investments and Total Liquidity

<u>Millions of dollars</u>	<u>June 30, 2020</u>
Cash and cash equivalents and restricted cash	\$ 2,578
Short-term investments	651
Cash and liquid investments	3,229
Availability under Senior Revolving Credit Facility	2,017
Availability under U.S. Receivables Facility	524
Total liquidity	<u>\$ 5,770</u>

Table 11 - Reconciliation of Free Operating Cash Flow to Net Cash Provided by Operating Activities and Ratio of LTM Cash Provided by Operating Activities to LTM EBITDA Ex LCM

<u>Millions of dollars</u>	Years Ended December 31,					<u>Year Ended December 31, 2019</u>	Six Months Ended		<u>Last Twelve Months</u>
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>		<u>June 30, 2019</u>	<u>June 30, 2020</u>	
Free operating cash flow	\$ 5,027	\$ 4,497	\$ 4,187	\$ 4,419	\$ 3,937	\$ 3,937	\$ 1,389	\$ 1,323	\$ 3,871
Add:									
Sustaining (maintenance and HSE) capital expenditures	815	1,109	1,019	1,052	1,024	1,024	454	511	1,081
Net cash provided by operating activities	<u>\$ 5,842</u>	<u>\$ 5,606</u>	<u>\$ 5,206</u>	<u>\$ 5,471</u>	<u>\$ 4,961</u>	<u>\$ 4,961</u>	<u>\$ 1,843</u>	<u>\$ 1,834</u>	<u>\$ 4,952</u>
Divided by:									
Q2 2020 LTM EBITDA excluding LCM ^(a)									\$ 4,447
Ratio of Q2 2020 LTM cash provided by operating activities to Q2 2020 LTM EBITDA excluding LCM									<u>111 %</u>

(a) LTM EBITDA excluding LCM see Table 7 Reconciliation of Net Income to EBITDA, including and excluding LCM

Table 12 - Calculation of LTM Free Operating Cash Flow Yield

	<u>Last Twelve Months</u>
	<u>June 30, 2020</u>
<u>Millions of Dollars (except share data)</u>	
Net cash provided by operating activities	\$ 4,952
Less:	
Sustaining (maintenance and HSE) capital expenditures	<u>1,081</u>
Free operating cash flow	\$ 3,871
Market Capital:	
Common stock outstanding	333,829,804
Closing Share Price, end of period	<u>\$ 65.72</u>
Market Capital	\$ 21,939
Free Operating Cash Flow Yield	<u><u>17.6 %</u></u>