

## PATTERSON-UTI ENERGY, INC.

### 3Q21 Earnings Recap: Bullish Outlook

**Quick Take:** Reiterate Sector Outperform on PTEN owing to leverage to NAM activity improvement. Our 2022/23 EBITDA est. of ~\$430/560M are ~20/25% upside to Street EBITDA est. The U.S. rig count could add ~125-150 by end of 2022. U.S. daily drilling margins could be about \$8k by 4Q22. Frac EBITDA/fleet could be about \$12M in 2H22. It is also positive for NOV with PTEN sold out of directional drilling equipment and lead times for 5.5" drill pipe at 8-12 months.

#### Thesis/Update

We reiterate Sector Outperform on Patterson-UTI Energy (PTEN) owing to leverage to North American activity improvement. We see ~20-25% upside to Street's 2022/23 EBITDA est. Separately, PTEN has begun divesting production services business.

The U.S. rig count could add ~125-150 by the end of 2022 i.e., BKR rig count could be 675-700. Albeit we model 635 rigs for 4Q22. PTEN is essentially sold out of XK and PK rigs in the Permian. The leading edge dayrate have moved up over the last month with more to continue. The leading edge dayrates are at low-\$20k and with ancillary services close to mid-\$20k. PTEN announced they will not add rigs until dayrates are at least that or higher.

Pressure pumping prices have increased double digit sequentially. PTEN expects annualized EBITDA/fleet could go back to 2018/early 2019 level, ie. \$12-14M vs. \$7M in 3Q21. The company has work lined for its 11<sup>th</sup> spread in 4Q21 and 12<sup>th</sup> in 1Q22. Over half of them will be dual fuel capable. We expect PTEN could add one more fleet in 2022 i.e., 13<sup>th</sup>, as the company can still upgrade it for \$2-3M.

PTEN guided 4Q21 daily U.S. land margins to ~\$5,500/day and jump back to 3Q21 level of \$6,300/day in 1Q22. The margins could further expand to close to \$8K/day by 4Q22. Reactivation cost of \$500K/rig are increasing and expected to be about \$900/day in 4Q21. We expect reactivation costs to decline to ~\$150/day by 4Q22. PTEN initiated \$600/day wage increase. Wages are pass through to customers but could take time to be passed on if rigs are working in spot market. Ancillary revenues are expected to decline in 4Q21 as PTEN is sold out of 5.5" drill pipe. However, the company should be able to get more pipe by 2H22. Lastly, we think dayrates have increased about \$2,000/day and more to come.

#### Numbers Matter

We model \$62/84M EBITDA for 4Q21/1Q22, ~5/20% above Street est. Our 2022/23 EBITDA est. of \$431/558M are ~20/25% above Street est.

Our one-year price target for PTEN remains \$9 based on 60% weight to 2030E DCF/share value of \$8.00, 20% on \$9 implying 10% FCF yield of ~\$0.90 on average over the next 5 years and 20% on a mix of 2024E DCF/share of \$14.00 and \$9.00 based on 4.5x 2024E EV/EBITDA discounted back 2 years at 10%.

#### Risks to Thesis

- Low 2022 FCF yield. Despite our 2022 EBITDA at ~\$430M, about 20% above Street est., we model only \$90M FCF or ~4% FCF yield. We model \$255M capex for 2022.

#### OILFIELD SERVICES & ENERGY TRANSITION

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- Over-supplied rig market. There are about ~700 super spec land rigs available in the market. This could keep a lid on pricing. Better market structure with top three holding more than 75% of super-spec rigs provides some offset.
- Is there enough manpower and equipment to get up to ~675-700 U.S. rigs?

## Company Model (US\$M)

Summary	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21E
Revenue	446	242	201	221	233	292	358	442
Consensus	439	245	198	219	238	294	358	409
EBITDA	87	53	36	30	27	36	51	62
Consensus	76	40	30	30	25	35	50	60
EPS	(\$0.45)	(\$0.58)	(\$0.64)	(\$0.58)	(\$0.61)	(\$0.54)	(\$0.44)	(\$0.37)
Consensus	(\$0.46)	(\$0.53)	(\$0.62)	(\$0.62)	(\$0.56)	(\$0.53)	(\$0.45)	(\$0.40)

Contract Drilling								
U.S. Land + Inland Rig (	785	392	254	308	390	450	498	525
Growth	-4%	-50%	-35%	21%	27%	15%	11%	5%

U.S.								
Operating Days	11,188	7,450	5,499	5,720	6,183	6,643	7,361	9,752
Rigs Working	123	82	60	62	69	73	80	106
Market Share	16%	21%	24%	20%	18%	16%	16%	20%

Blended Dayrate (\$)	23,810	21,806	19,740	20,210	20,260	21,310	21,450	21,600
Daily Opex (\$)	(14,500)	(11,650)	(10,620)	(12,430)	(12,840)	(15,050)	(15,150)	(16,100)
Daily Margins (\$)	9,310	10,156	9,120	7,780	7,420	6,260	6,300	5,500

Total Contract Drilling	267	163	109	116	125	142	158	211
Growth	-1%	-39%	-33%	6%	8%	13%	11%	33%
Opex	(163)	(87)	(59)	(71)	(79)	(100)	(112)	(157)
EBITDA	102	74	49	43	45	40	45	53
EBITDA Margin	38.3%	45.6%	44.7%	37.6%	35.8%	28.5%	28.7%	25.0%
EBIT	(9)	(33)	(54)	(61)	(57)	(58)	(52)	(58)
EBIT Margin	-3.4%	-20.2%	-49.5%	-53.2%	-45.4%	-41.1%	-32.8%	-27.5%

Pressure Pumping								
U.S. Horizontal Rig Cour	703	353	217	269	350	408	452	481
Growth	-2%	-50%	-38%	24%	30%	17%	11%	6%

U.S. Well Completions	3,181	1,103	1,278	1,599	1,978	2,283	2,450	2,435
Growth	9%	-65%	16%	25%	24%	15%	7%	-1%

U.S. Frac Fleets Workin	314	78	115	123	144	173	199	210
Growth	-4%	-75%	47%	7%	17%	20%	15%	5%

U.S. Working HHP (MM)	14,755	3,683	5,425	5,786	7,218	8,652	9,955	10,500
Growth	-4%	-75%	47%	7%	25%	20%	15%	5%

Average Fleet Working	10	4	5	7	7	8	9	10
Market Share	3%	5%	4%	6%	5%	5%	5%	5%
Avg Annualized Rev/Flee	50	60	64	45	43	56	68	65
Avg Adj EBITDA/Fleet W	3	2	6	1	(1)	4	7	7

Pressure Pumping Rev	125	60	72	79	76	112	153	167
Growth	-23%	-52%	21%	10%	-5%	48%	36%	9%
Gross Profit	10	3	8	4	(1)	10	18	19
Gross Profit %	8.2%	5.5%	11.5%	5.1%	-0.9%	8.6%	11.8%	11.1%
EBITDA	7	2	6	2	(2)	8	16	17
EBITDA Margin	5.7%	2.7%	8.7%	2.9%	-3.1%	7.0%	10.5%	10.0%
EBIT	(35)	(37)	(31)	(32)	(40)	(24)	(14)	(13)
EBIT Margin	-28.4%	-62.5%	-42.9%	-40.0%	-52.4%	-21.4%	-9.0%	-7.9%

2014	2015	2016	2017	2018	2019	2020	2021E	2022E	2023E	2024E	2025E	2026E
3,182	1,821	898	2,357	3,327	2,460	1,109	1,325	2,154	2,359	2,362	2,362	2,362
3,182	1,891	916	2,357	3,327	2,471	1,124	1,298	1,927	2,183	2,364	-	-
1,002	513	192	546	808	573	207	176	431	558	560	560	560
1,002	582	212	491	806	560	174	173	358	448	557	-	-
\$1.11	(\$1.47)	(\$2.25)	(\$0.80)	(\$0.34)	(\$1.17)	(\$2.23)	(\$1.94)	(\$0.80)	(\$0.33)	\$0.89	\$0.94	\$0.96
\$1.53	(\$0.73)	(\$2.16)	(\$0.80)	(\$0.34)	(\$0.97)	(\$2.45)	(\$1.97)	(\$1.03)	(\$0.27)	\$0.07	-	-
1,806	925	486	862	1,033	943	434	466	604	647	648	648	648
6%	-49%	-47%	77%	20%	-9%	-54%	7%	30%	7%	0%	0%	0%

74,099	43,685	22,975	49,751	62,971	54,282	29,857	29,939	44,942	47,196	47,304	47,304	47,304
203	120	63	136	173	149	82	82	123	129	130	130	130
11%	13%	13%	16%	17%	16%	19%	18%	20%	20%	20%	20%	20%

23,621	23,843	21,686	20,688	22,204	23,841	21,442	21,159	21,990	23,849	23,849	23,849	23,849
(13,810)	(12,420)	(13,750)	(12,890)	(13,580)	(15,470)	(12,430)	(16,100)	(14,800)	(14,800)	(14,800)	(14,800)	(14,800)
9,811	11,423	7,936	7,798	8,624	8,371	9,012	5,059	7,190	9,049	9,049	9,049	9,049

1,839	1,084	531	1,040	1,430	1,298	654	636	989	1,126	1,128	1,128	1,128
-	-41%	-51%	96%	38%	-9%	-50%	-3%	56%	14%	0%	0%	0%
(1,067)	(609)	(306)	(667)	(886)	(785)	(381)	(448)	(669)	(701)	(702)	(702)	(702)
766	458	219	367	538	506	269	183	314	419	420	420	420
41.7%	42.2%	41.3%	35.3%	37.6%	39.0%	41.1%	28.8%	31.7%	37.2%	37.2%	37.2%	37.2%
242	(161)	(249)	(143)	15	11	(157)	(225)	(128)	(24)	260	260	260
13.2%	-14.8%	-46.9%	-13.7%	1.1%	0.9%	-24.0%	-35.4%	-13.0%	-2.1%	23.0%	23.0%	23.0%

1,278	731	401	737	900	825	385	423	548	590	591	591	591
16%	-43%	-45%	84%	22%	-8%	-53%	10%	30%	8%	0%	0.0%	0.0%

21,370	13,059	8,132	11,810	14,749	13,836	7,161	9,147	10,963	11,448	11,518	10,786	10,786
-	-39%	-38%	45%	25%	-6%	-48%	28%	20%	4%	1%	-6%	0.0%

452	264	162	314	413	377	157	182	242	259	259	259	259
-	-41%	-39%	93%	32%	-9%	-58%	15%	33%	7%	0%	0.0%	0.0%

-	9,251	6,485	14,110	19,411	17,719	7,402	9,093	12,075	12,930	12,960	12,960	12,960
-	-	-30%	118%	38%	-9%	-58%	23%	33%	7%	0%	0.0%	0.0%

-	-	-	18	23	15	6	9	13	13	13	13	13
-	-	-	6%	6%	4%	4%	5%	5%	5%	5%	5%	5%
-	-	-	63	69	59	55	58	70	71	71	71	71
-	-	-	11	13	8	3	4	11	12	12	12	12

1,293	712	354	1,200	1,573	869	336	507	871	917	917	917	917
-	-45%	-50%	239%	31%	-45%	-61%	51%	72%	5%	0%	0%	0%
257	100	19	233	310	133	26	46	147	163	163	163	163
19.9%	14.1%	5.5%	19.5%	19.7%	15.3%	7.7%	9.0%	16.9%	17.8%	17.8%	17.8%	17.8%
237	84	8	219	294	120	17	38	140	156	156	156	156
18.3%	11.8%	2.3%	18.2%	18.7%	13.9%	5.1%	7.5%	16.0%	17.0%	17.0%	17.0%	17.0%
89	(130)	(177)	21	62	(93)	(135)	(91)	20	37	96	96	96
6.9%	-18.3%	-49.9%	1.8%	3.9%	-10.7%	-40.3%	-17.9%	2.3%	4.0%	10.5%	10.5%	10.5%

Source: Bloomberg; Company reports; CPI est.

## Company Model Contd. (US\$M)

Directional Drilling	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21E
U.S. Horizontal Rig Cour	703	353	217	269	350	408	452	481
Growth	-2%	-50%	-38%	24%	30%	17%	11%	6%

Directional Drilling Re	34	12	10	17	20	25	32	34
Growth	-11%	-66%	-13%	64%	17%	26%	28%	6%
vs Rig Count	-9%	-16%	26%	40%	(0)	10%	17%	0%
EBITDA	(0)	(2)	(0)	1	2	1	2	3
EBITDA Margin	-0.5%	-13.1%	-3.0%	6.4%	8.0%	6.0%	6.9%	9.7%
Incr EBITDA Margin	34%	6%	-83%	21%	17%	-2%	10%	20%
EBIT	(11)	(11)	(10)	(6)	(5)	(5)	(5)	(4)
EBIT Margin	-30.7%	-95.5%	-96.5%	-33.9%	-25.0%	-20.5%	-14.4%	-10.4%

Colombia Rigs	(10)	(10)	(10)	(7)	(6)	(7)	(7)	(7)
U.S. Horizontal Rig Cour	(10)	(10)	(10)	(7)	(6)	(7)	(7)	(7)
Growth	-1060%	-1121%	-991%	-572%	-492%	-511%	-458%	-351%

Total Available Rigs	0	0	0	0	8	8	8	8
Working Rigs	0	0	0	0	4	3	5	5
Dayrate	0	0	0	0	34,680	32,720	31,504	34,000
Daily Cost	0	0	0	0	(25,313)	(26,216)	(25,000)	(25,000)
Daily Margins	0	0	0	0	9,367	6,504	6,504	9,000

Intl. Drilling Revs	0	0	0	0	11	10	14	16
Intl. Drilling Revs Growth	0%	0%	0%	0%	NA	-12%	50%	8%
Opex	0	0	0	0	(8)	(8)	(12)	(12)
EBITDA	0	0	0	0	2	1	2	3
EBITDA Margin	0.0%	0.0%	0.0%	0.0%	18.0%	9.6%	13.7%	20.1%
EBIT	0	0	0	0	(1)	(2)	(1)	1
EBIT Margin	0.0%	0.0%	0.0%	0.0%	-10.5%	-16.4%	-3.6%	4.0%

Other Operations	785	392	254	308	390	450	498	525
U.S. Horizontal Rig Cour	785	392	254	308	390	450	498	525
Growth	-4%	-50%	-35%	21%	27%	15%	11%	5%

Other Revenues	19	8	10	9	12	13	16	16
Growth	-12%	-58%	23%	-10%	34%	11%	18%	0%
vs Rig Count	-5%	-8%	59%	-31%	10%	-5%	8%	-5%
EBITDA	1	(2)	0	0	1	2	5	5
EBITDA Margin	7.8%	-23.6%	4.4%	3.2%	10.6%	17.7%	29.0%	29.2%
Incr EBITDA Margin	192%	31%	123%	15%	32%	84%	91%	90%
EBIT	(8)	(10)	(6)	(6)	(5)	(3)	(1)	(1)
EBIT Margin	-43.1%	-123.6%	-65.2%	-69.2%	-38.2%	-24.9%	-8.6%	-8.3%

2014	2015	2016	2017	2018	2019	2020	2021E	2022E	2023E	2024E	2025E	2026E
1,278	731	401	737	900	825	385	423	548	590	591	591	591
16%	-43%	-45%	84%	22%	-8%	-53%	10%	30%	8%	0%	0%	0%

-	-	-	46	209	189	73	110	154	165	166	166	166
-	-	-	-	359%	-10%	-61%	50%	40%	8%	0%	0%	-
-	-	-	-	337%	-1%	-8%	40%	10%	0%	0%	0%	-
-	-	-	9	18	16	(1)	9	17	20	20	20	20
-	-	-	20.5%	8.4%	8.7%	-1.3%	7.7%	11.1%	12.0%	12.0%	12.0%	12.0%
-	-	-	0%	5%	15%	26%	19%	24%	25%	-	-	-
-	-	-	(0)	(28)	(36)	(37)	(18)	(10)	(7)	(7)	(7)	(7)
-	-	-	0%	-13.3%	-18.9%	-51.0%	-16.5%	-6.6%	-4.4%	-4.3%	-4.3%	-4.3%

0	0	0	(9)	(45)	(52)	(37)	(27)	(27)	(27)	(27)	(27)	(27)
0%	0%	0%	-2%	-2781%	-3572%	-3744%	-1813%	-1008%	-728%	-717%	-717%	-717%

-	-	0	0	0	0	0	8	8	8	8	8	8
0	0	0	0	0	0	0	4	6	6	6	6	6
0	0	0	0	0	0	0	33,146	34,000	34,000	34,000	34,000	34,000
0	0	0	0	0	0	0	(25,300)	(25,000)	(25,000)	(25,000)	(25,000)	(25,000)
0	0	0	0	0	0	0	7,847	9,000	9,000	9,000	9,000	9,000

-	-	0	0	0	0	0	51	68	74	74	74	74
0%	0%	0%	0%	0%	0%	0%	NA	34%	9%	0%	0%	0%
0	0	0	0	0	0	0	(39)	(50)	(55)	(55)	(55)	(55)
0	0	0	0	0	0	0	8	14	16	16	16	16
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.8%	20.6%	21.1%	21.1%	21.1%	21.1%
0	0	0	0	0	0	0	(3)	4	6	6	6	6
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-5.2%	5.9%	7.6%	7.6%	7.6%	7.6%

1,806	925	486	862	1,033	943	434	466	604	647	648	648	648
6%	-49%	-47%	77%	20%	-9%	-54%	7%	30%	7%	0%	0%	0%

-	-	5	71	114	105	46	56	72	77	77	77	77
-	-	-	1271%	61%	-8%	-56%	23%	28%	7%	0%	0%	-
-	-	-	-3287%	41%	1%	-2%	16%	-2%	0%	0%	0%	-
-	-	4	9	23	20	0	13	21	23	23	23	23
-	-	80.1%	12.1%	20.5%	19.5%	0.7%	22.5%	29.3%	29.3%	29.3%	29.3%	29.3%
-	-	0%	7%	34%	31%	34%	116%	54%	30%	30%	-	-
-	-	2	(21)	(18)	(22)	(31)	(10)	(2)	(1)	(1)	(1)	(1)
-	-	46.7%	-29.4%	-16.0%	-21.3%	-67.0%	-18.6%	-3.3%	-1.1%	-1.0%	-1.0%	-1.0%

Source: Bloomberg; Company reports; CPI est.

## Company Model Contd. (US\$M)

Income Statement	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21E
<b>Total Revenues</b>	<b>446</b>	<b>242</b>	<b>201</b>	<b>221</b>	<b>233</b>	<b>292</b>	<b>358</b>	<b>442</b>
EBIT	(89)	(112)	(121)	(124)	(126)	(108)	(90)	(95)
<i>EBIT Margin</i>	-19.9%	-46.1%	-60.3%	-56.2%	-54.1%	-37.1%	-25.2%	-21.5%
D&A	(176)	(165)	(157)	(154)	(153)	(144)	(141)	(157)
<b>EBITDA</b>	<b>87</b>	<b>53</b>	<b>36</b>	<b>30</b>	<b>27</b>	<b>36</b>	<b>51</b>	<b>62</b>
<i>EBITDA Margin</i>	19.6%	22.1%	18.1%	13.4%	11.6%	12.3%	14.2%	14.0%
Interest Expense	(11)	(11)	(11)	(7)	(10)	(11)	(11)	(10)
Tax	14	13	13	25	21	16	18	18
<i>Tax Rate</i>	14%	11%	10%	19%	15%	14%	17%	17%
Net Income	(85)	(109)	(119)	(107)	(115)	(102)	(83)	(87)
Other	(349)	(42)	6	-	-	(1)	0	-
Diluted Shares	191	187	187	184	188	188	189	233
<b>Clean EPS</b>	<b>(\$0.45)</b>	<b>(\$0.58)</b>	<b>(\$0.64)</b>	<b>(\$0.58)</b>	<b>(\$0.61)</b>	<b>(\$0.54)</b>	<b>(\$0.44)</b>	<b>(\$0.37)</b>

Cash Flows	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21E
Net Income	(435)	(150)	(112)	(107)	(106)	(103)	(83)	(87)
D&A	187	173	157	154	153	144	141	157
WC Changes	(15)	97	33	(31)	(22)	8	(5)	(2)
Stock Comp	9	4	7	6	6	6	6	6
Other	395	41	(7)	(2)	(0)	(3)	-	-
CFO	73	146	64	(4)	9	36	41	56
Capex	(72)	(50)	(13)	(10)	(19)	(38)	(38)	(38)
<b>FCF</b>	<b>1</b>	<b>96</b>	<b>51</b>	<b>(15)</b>	<b>(10)</b>	<b>(2)</b>	<b>3</b>	<b>18</b>

Changes in Debt	-	-	-	(63)	-	-	0	17
Changes in Equity	(20)	(1)	(0)	(0)	-	(4)	-	265
Dividends	(8)	(4)	(4)	(4)	(4)	(4)	(4)	(5)
Other	-	(0)	-	(0)	-	-	-	-
Cash at Beginning	174	152	247	304	225	214	217	217
<b>Cash at End</b>	<b>152</b>	<b>247</b>	<b>304</b>	<b>225</b>	<b>214</b>	<b>217</b>	<b>217</b>	<b>217</b>

Balance Sheet	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21E
Cash	152	247	304	225	214	217	217	217
Receivables	319	158	131	160	181	197	202	204
Inventories	34	35	34	33	34	34	34	34
Payables	140	73	74	92	101	121	121	121
Total Debt	967	967	967	901	902	902	902	919

Ratios	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21E
<i>Net Debt/Cap</i>	24%	23%	21%	23%	24%	25%	26%	25%
<i>Net Debt/EBITDA</i>	1.7x	2.0x	2.5x	3.3x	4.7x	5.3x	4.6x	4.0x
<i>Capex/Sales</i>	16%	21%	7%	5%	0%	0%	0%	0%
<i>Working Capital/Sales</i>	12%	12%	11%	12%	12%	9%	8%	8%

2014	2015	2016	2017	2018	2019	2020	2021E	2022E	2023E	2024E	2025E	2026E
<b>3,182</b>	<b>1,821</b>	<b>898</b>	<b>2,357</b>	<b>3,327</b>	<b>2,460</b>	<b>1,109</b>	<b>1,325</b>	<b>2,154</b>	<b>2,359</b>	<b>2,362</b>	<b>2,362</b>	<b>2,362</b>
283	(352)	(475)	(209)	(42)	(237)	(446)	(419)	(197)	(70)	273	273	273
8.9%	-19.3%	-52.9%	-8.9%	-1.3%	-9.7%	-40.2%	-31.7%	-9.1%	-2.9%	11.6%	11.6%	11.6%
(719)	(865)	(667)	(754)	(850)	(810)	(652)	(595)	(628)	(628)	(286)	(286)	(286)
<b>1,002</b>	<b>513</b>	<b>192</b>	<b>546</b>	<b>808</b>	<b>573</b>	<b>207</b>	<b>176</b>	<b>431</b>	<b>558</b>	<b>560</b>	<b>560</b>	<b>560</b>
31.5%	28.2%	21.3%	23.2%	24.3%	23.3%	18.6%	13.3%	20.0%	23.7%	23.7%	23.7%	23.7%
(29)	(36)	(40)	(36)	(49)	(53)	(40)	(41)	(40)	(32)	(19)	(4)	0
(92)	174	186	84	17	54	65	73	47	20	(51)	(54)	(55)
36%	45%	36%	34%	18%	18%	13%	16%	20%	20%	20%	20%	20%
163	(214)	(329)	(160)	(74)	(237)	(419)	(387)	(185)	(77)	208	219	223
-	44	15	166	(247)	(193)	(384)	(1)	-	-	-	-	-
146	146	146	199	219	203	188	200	233	233	233	233	233
<b>\$1.11</b>	<b>(\$1.47)</b>	<b>(\$2.25)</b>	<b>(\$0.80)</b>	<b>(\$0.34)</b>	<b>(\$1.17)</b>	<b>(\$2.23)</b>	<b>(\$1.94)</b>	<b>(\$0.80)</b>	<b>(\$0.33)</b>	<b>\$0.89</b>	<b>\$0.94</b>	<b>\$0.96</b>

163	(294)	(319)	6	(321)	(426)	(804)	(380)	(185)	(77)	208	219	223
719	865	668	783	916	1,004	671	595	628	628	286	286	286
(208)	387	96	(171)	(45)	135	84	(21)	(67)	(29)	-	-	-
27	29	28	44	38	39	27	24	28	32	32	32	32
(15)	114	(17)	(31)	184	47	426	(3)	-	-	-	-	-
729	999	305	301	731	696	279	141	347	524	567	538	541
(1,052)	(744)	(120)	(567)	(641)	(348)	(145)	(133)	(256)	(246)	(213)	(213)	(213)
<b>(324)</b>	<b>256</b>	<b>185</b>	<b>(266)</b>	<b>89</b>	<b>349</b>	<b>133</b>	<b>9</b>	<b>91</b>	<b>278</b>	<b>354</b>	<b>325</b>	<b>328</b>

303	(132)	(258)	268	253	(176)	(63)	17	(122)	(259)	(336)	(203)	-
(14)	(8)	(4)	465	(161)	(255)	(21)	261	-	-	-	-	-
(58)	(59)	(24)	(16)	(31)	(32)	(19)	(16)	(19)	(19)	(19)	(19)	(19)
30	-	0	0	(4)	(1)	(1)	-	-	-	-	-	-
250	43	113	35	43	245	174	225	217	217	217	217	320
<b>43</b>	<b>113</b>	<b>35</b>	<b>43</b>	<b>245</b>	<b>174</b>	<b>225</b>	<b>217</b>	<b>217</b>	<b>217</b>	<b>217</b>	<b>320</b>	<b>630</b>

43	113	35	43	245	174	225	217	217	217	217	320	630
663	663	148	580	559	340	160	204	270	299	299	299	299
32	32	20	69	66	36	33	34	34	34	34	34	34
382	382	126	320	289	170	92	121	121	121	121	121	121
683	683	598	599	1,119	967	901	919	797	538	203	-	-

18%	16%	20%	12%	19%	21%	23%	25%	23%	15%	-1%	-15%	-27%
0.6x	1.1x	2.9x	1.0x	1.1x	1.4x	3.3x	4.0x	1.3x	0.6x	0.0x	-0.6x	-1.1x
33%	41%	13%	24%	19%	14%	13%	10%	12%	10%	9%	9%	9%
10%	17%	5%	14%	10%	8%	9%	9%	9%	9%	9%	9%	9%

Source: Bloomberg; Company reports; CPI est.

## Appendix A – Required Disclosures

### Analyst Certification

I, Vaibhav (Vebs) Vaishnav, certify that to the best of my knowledge, the views and opinions in our research reports accurately reflect my personal views about the subject company (companies) and its (their) securities. I have not and will not receive direct or indirect compensation related to the specific recommendations or opinions of this report. Unless otherwise stated, the individuals listed on the cover page of this report are analysts for Coker Palmer Institutional (CPI). Coker Palmer Institutional (CPI) is the brand name used to distinguish Coker & Palmer's institutional only, sell side equity research operations.

### Important Disclosures

**Conflicts of Interest:** You should assume that as of the publication date of any report or letter, CPI (possibly along with or through our members, partners, affiliates, employees, and/or consultants) along with our clients and/or investors has a position in the subject companies or derivatives of subject companies mentioned in this report, and therefore stands to realize gains based on the price movements of stocks covered in this report. Following publication of any report or letter, we intend to continue transacting in the securities covered therein, and we may be long, short, or neutral at any time hereafter regardless of our initial recommendation.

### Analyst Compensation

Analysts are not directly compensated based on investment banking fees, but analysts' compensation is based on overall firm profitability, which may or may not include investment-banking fees. CPI has not received investment-banking income from the subject companies in the previous 12 months. Investors should expect that Coker & Palmer may seek and may be seeking compensation for investment banking and non-investment banking related services and production from any or all companies mentioned within this report.

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CPI has not been involved with any investment banking/consulting activities in the Oilfield Services and/or Green Energy sector in the past six months.

### Rating Methodology

Coker Palmer Institutional (CPI) is restarting formal rating systems. The firm has a three-tiered rating system, with ratings of Sector Outperform, Sector Perform, and Sector Underperform. Each Research Analyst assigns a rating that is relative to his or her coverage universe or an index identified by the Research Analyst that includes, but is not limited to, stocks covered by the Research Analyst.

The rating assigned to each security covered in this report is based on the CPI Research Analyst's 12-month view on the security. Research Analysts may sometimes express in research reports shorter-term views on these securities that may impact the price of the equity security in a manner directly counter to the Research Analyst's 12-month view.

## Appendix A – Required Disclosures Contd.

These shorter term views are based upon catalysts or events that may have a shorter-term impact on the market price of the equity securities discussed in research reports, including but not limited to the inherent volatility of the marketplace. Any such shorter-term views expressed in research report are distinct from and do not affect the Research Analyst's 12-month view and are clearly noted as such.

### Ratings

#### Sector Outperform (SO)

The stock is expected to outperform the average 12-month total return of the analyst's coverage universe or an index identified by the analyst that includes, but is not limited to, stocks covered by the analyst.

#### Sector Perform (SP)

The stock is expected to perform approximately in-line with the average 12-month total return of the analyst's coverage universe or an index identified by the analyst that includes, but is not limited to, stocks covered by the analyst.

#### Sector Underperform (SU)

The stock is expected to underperform the average 12-month total return of the analyst's coverage universe or an index identified by the analyst that includes, but is not limited to, stocks covered by the analyst.

### Coker & Palmer Institutional Ratings Distribution

Category	Count	Percent
Sector Outperform	4	29%
Sector Perform	4	29%
Sector Underperform	6	43%
Total	14	100%

### Price Target Methodology:

Coker Palmer Institutional (CPI) price targets are essentially based on DCF methodology.

### Valuation/Risk Factors

Oilfield Services (OFS) business is inherently risky. OFS investors should be fully aware of these risks, which include, but are not limited to, volatile natural gas, NGL's and crude oil prices, demand for and competition for a company's product and/or service, asset quality, customer risks, changes in operating costs, company capital structures, operating and working capital needs and ability to raise both debt and equity capital to fund operations. We value OFS equities on many different metrics, including but not limited to, our subjective view as to the quality of management, discounted cash flows, net asset values, enterprise value to EBITDA or cash flow multiples, price to earnings or cash flow multiples, reinvestment risk and full cycle economics. These factors are uncertain and our outlook is subject to change, sometimes quite quickly. Any changes in the above factors can impede achievement of our valuation assessments.

## Appendix A – Required Disclosures Contd.

Green Energy businesses are inherently risky. The industry is still at a nascent stage and long-term viability is still not established. Investors should be fully aware of these risks, which include, but are not limited to, viability of new products and markets targeted, volatile commodity prices, demand for and competition for a company's product and/or service, asset quality, customer risks, changes in operating costs, company capital structures, operating and working capital needs and ability to raise both debt and equity capital to fund operations. We value Green Energy equities on many different metrics, including but not limited to, our subjective view as to the quality of management, discounted cash flows, net asset values, enterprise value to EBITDA or cash flow multiples, price to earnings or cash flow multiples, reinvestment risk and full cycle economics. These factors are uncertain and our outlook is subject to change, sometimes quite quickly. Any changes in the above factors can impede achievement of our valuation assessments.

The Exploration and Production (E&P) business is inherently risky. Investors in E&P equities should be fully aware of these risks, which include, but are not limited to, volatile natural gas, NGL's and crude oil prices, regional pricing differences, field and company asset quality, reserve depletion factors, drilling risks, operating costs, company capital structures, operating and working capital needs and ability to raise both debt and equity capital to fund operations. . . E&P Valuation Methods used to determine the Price Target: We value E&P companies on many different metrics, including, but not limited to, our estimate of net asset value (NAV), enterprise value to EBITDA or cash flow multiples, price/earnings or cash flow multiples, discounted cash flow analysis and breakup/acquisition values. All our estimates and valuations are highly and inherently uncertain. They are based on, but not limited to, our outlook for the commodity price, our subjective view as to the quality of management, net asset value, quality of the proven and unproven reserves and resources, ability to develop and produce these reserves/resources, financial strength, cash flow, access to capital, and full cycle economics of investments. These factors are uncertain and our outlook is subject to change, sometimes quite quickly. Any changes in the above factors can impede achievement of our valuation assessments.

Industrials: This category might cover many different types of companies with various business models and various factors affecting the operations and stock prices, some of which include overall economic growth, end market demand, product inventories and competition. Some of these companies might have various energy-related exposure through both sales and/or costs. In general, industrial company risks include, but not limited to, high fixed operating costs, rising input costs, currency and commodity price fluctuations, variable demand, inventory levels, quality of management, competition and obsolescence.

E&P, Oilfield Service, Industrials, Green Energy, as well as investments in the other subsectors we follow are subject to a myriad of external factors, including but not limited to, commodity price risk, geopolitical risk, changes in interest rates, the value of worldwide currencies, especially the U.S. dollar, changing regulations, both domestically and abroad, regulatory enforcement levels, and changes in domestic or global economic fundamentals. Please see specific companies' most recent SEC filings, including 10-Ks, 10-Qs, 8-Ks, and proxy filings for additional risks and considerations. For companies based outside the US, please see country specific regulatory filings for additional risks and considerations.