

U.S. Upstream **M&A Activity Report**
Third Quarter 2018



Same Team. New Name – Coming Soon!

In December, E-Spectrum Advisors will receive a new name, BOK Financial Securities. Even though the team will have a new name, you will be working with the same team of industry experts as you do today. It will be business as usual! We look forward to working with you on your energy investment banking needs:

- Raising capital
- Asset divestiture
- Acquisitions (byside advisory)
- Financial advisory
- Restructuring consultation and evaluation services
- Fairness Options

To learn more about E-Spectrum Advisors, visit www.e-spectrumadvisors.com or contact:

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Jeff Hawes - Associate | 214.417.3554

Select Current and Recent Transactions


CHOLLA PETROLEUM, Inc.
Sale of Operated Properties in the Eastern Shelf of Permian Basin (Scurry & Fisher Counties, TX)
Exclusive Divestiture Agent Marketing


Carrera ENERGY LLC
Sale of Operated and Non-Operated STACK Properties (Blaine County, OK)
Exclusive Divestiture Agent Marketing

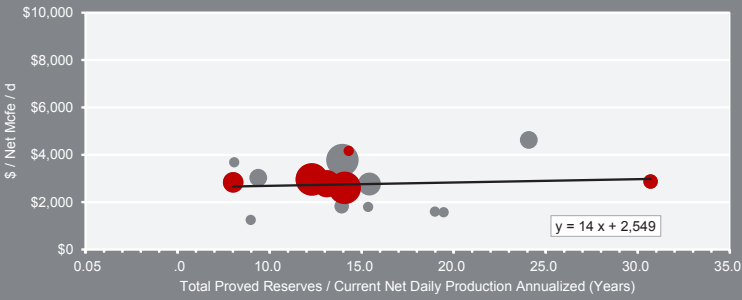

COR COUNCIL OAK RESOURCES
Capital Commitment for STACK Drilling Program
Financial Advisor September 2018

Williston Energy Holdings LLC
Sale of Non-Operated Bakken & Three Forks Properties
Exclusive Divestiture Agent August 2018

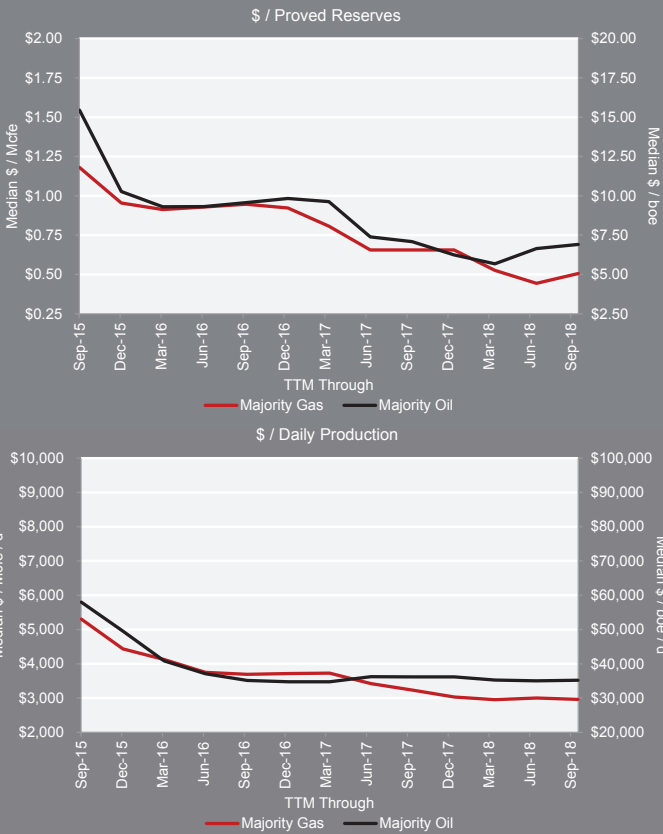
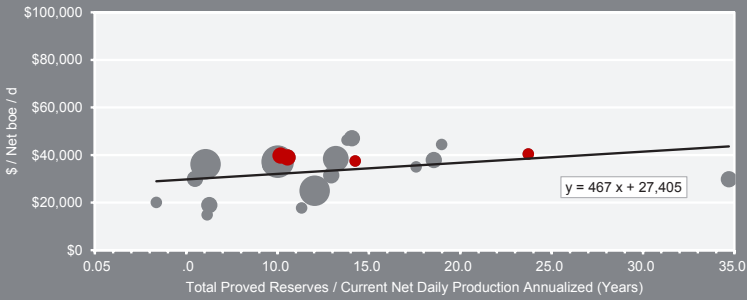
Proved R/P as Estimate of Asset Sale Price

Why does one property sell for \$40,000 per net boe / d and another for \$140,000 per net boe / d? Using statistical analysis, E-Spectrum Advisors has identified a positive correlation between Proved R/P and dollar paid per daily unit of net production.
R is defined as Total Net Proved Reserves. **P** is defined as Current Net Daily Production Annualized. As indicated in the data table, most reserve information is taken from buyers' press releases. For example, using the oil chart and formula above, one can see that a majority-oil transaction with an R/P of 15 years could sell on **average** for \$34,410 per net Boe / d.

Majority Gas: Net Production Rate Multiple (\$ / Mcfe / d) vs. Proved R/P
All Property Sales (\$10MM - \$2,000MM) Announced in the Last 12 Mos
Red Indicates Last Quarter. Point Size Proportionate to Total Price.



Majority Oil: Net Production Rate Multiple (\$ / boe / d) vs. Proved R/P
All Property Sales (\$10MM - \$2,000MM) Announced in the Last 12 Mos
Red Indicates Last Quarter. Point Size Proportionate to Total Price.



Trailing Twelve Months September 2018

MAJORITY GAS ALL U.S. FROM \$10 MILLION TO \$2 BILLION

Announced	Date	Buyer	Seller	Total Price* (\$MM)	Reserve Price (\$MM)	Proved Reserves (Bcfe)	Value* (\$ / Mcfe)	Production (MMcfe / d)	Net (\$ / Mcfe / d)	Value* (\$ / Mcfe / d)	Region	% Gas	Proved R/P	Oil **	Gas **
	9/4/18	Flywheel Energy LLC	Southwestern Energy	1,865	1,865	3,679	0.51	716.0		2,605	Fayetteville	100%	14.1	67.61	2.77
	8/27/18	Eclipse Resources	Blue Ridge Mountain Resources Inc	346	346	357	0.97	122.0		2,836	APP (Utica)	81%	8.0	67.21	2.82
	8/27/18	PennEnergy Resources LLC	Rex Energy Corp	601	601	1,033	0.58	215.9		2,781	APP (Marcellus)	55%	13.1	67.21	2.82
	8/2/18	Sanguine Gas Exploration LLC	Vanguard Natural Resources LLC	23	23	29	0.80	5.5		4,163	MC (Arkoma)	100%	14.3	65.93	2.80
	8/2/18	Lime Rock Resources	ConocoPhillips	230	230	NA	NA	54.0		4,259	Barnett	55%	NA	65.93	2.80
	7/30/18	Undisclosed Buyer	Range Resources Corp	23	23	NA	NA	11.0		2,091	MidCon (OK & KS)	100%	NA	67.01	2.81
	7/26/18	Merit Energy	BHP Billiton	300	300	NA	NA	219.0		1,370	Fayetteville	100%	NA	66.82	2.78
	7/26/18	Encino Acquisition Partners	Chesapeake	1,900	1,900	2,880	0.66	642.0		2,960	APP (Utica)	66%	12.3	66.82	2.78
	7/10/18	Middle Fork Energy Partners LLC	QEP Resources Inc	155	155	605	0.26	54.0		2,870	Rockies	77%	30.7	68.22	2.80
	6/29/18	Ascent Resources LLC	CNX Resources; Hess; Utica Minerals	1,500	816	1,100	0.74	216.0		3,778	APP (Utica)	81%	14.0	68.30	2.90
	6/29/18	Osaka Gas	Sabine Oil & Gas Corp	146	103	NA	NA	33.3		3,100	Haynesville Shale	100%	NA	68.30	2.90
	6/14/18	Diversified Gas & Oil Plc	EQT Corporation	575	575	NA	NA	192.6		2,985	APP (Multiple)	77%	NA	65.50	2.92
	5/9/18	Undisclosed Buyer	Vanguard Natural Resources LLC	60	60	NA	NA	17.0		3,530	Multiple	>50%	NA	68.69	2.79
	5/4/18	Carbon Natural Gas Co	Carbon Appalachian Co LLC	57	57	247	0.23	35.6		1,601	APP (Multiple)	99%	19.0	67.78	2.75
	3/14/18	XPR Resources LLC	Rex Energy Corp	17	17	NA	NA	8.2		2,098	APP (Marcellus)	100%	NA	59.77	2.92
	3/13/18	Rio Grande E&P	Amplify Energy Corp	20	20	52	0.38	16.0		1,250	South Texas	88%	9.0	59.69	2.91
	3/7/18	Fleur de Lis Energy LLC	Devon Energy	553	553	1,126	0.49	200.0		2,765	Barnett	81%	15.4	59.12	2.93
	1/24/18	El Dorado Resources Inc	SilverBow Resources Inc	35	35	28	1.25	9.5		3,684	STX (Eagle Ford)	57%	8.1	62.66	3.02
	2/12/18	Tanos Energy Holdings III LLC	WildHorse Resource Development Corp	217	217	412	0.53	46.9		4,627	N. Louisiana	96%	24.1	57.17	2.78
	2/6/18	Camino Natural Resources LLC	Chesapeake	170	40	NA	NA	9.0		4,444	SCOOP/STACK	70%	NA	60.79	2.84
	1/31/18	Diversified Gas & Oil Plc	CNX Resources Corp	85	85	383	0.22	54.0		1,574	APP (Marcellus)	99%	19.5	62.97	2.95
	1/31/18	Diversified Gas & Oil Plc	Lake Fork Resources LLC	95	95	296	0.32	52.8		1,799	APP (Marcellus)	99%	15.3	62.97	2.95
	12/21/17	Alta Resources LLC	Ultra Petroleum	115	115	NA	NA	30.0		3,833	APP (Marcellus)	100%	NA	57.17	2.63
	12/14/17	FourPoint Energy LLC	EnerVest Management Partners	188	152	NA	NA	39.0		3,897	MC (Granite Wash)	60%	NA	56.55	2.73
	12/14/17	Undisclosed Buyer	Samson Resources II LLC	34	34	NA	NA	9.0		3,778	RM (Green River)	>50%	NA	56.55	2.73
	12/12/17	Banpu Public Co Ltd	Warren Resources Inc	105	105	292	0.36	57.5		1,826	APP (Marcellus)	100%	13.9	56.75	2.73
	12/11/17	Eclipse Resources	Travis Peak Resources LLC	94	20	NA	NA	6.5		3,001	APP (Utica)	100%	NA	57.63	2.81
	10/31/17	Hilcorp Energy Co	Anadarko	350	350	1,599	0.22	96.0		3,646	RM (Green River)	75%	45.6	54.04	2.96
	10/26/17	LOGOS Resources II LLC	WPX Energy Inc	169	169	NA	NA	73.0		2,315	RM (San Juan)	>50%	NA	52.67	2.97
	10/5/17	Banpu Public Co Ltd	Reliance Energy Limited; Carrizo	210	210	NA	NA	100.0		2,100	APP (Marcellus)	100%	NA	48.96	3.05
	10/4/17	Exaro Energy III LLC	Linn Energy LLC	200	200	226	0.88	66.0		3,030	RM (Green River)	70%	9.4	48.96	3.05
		Per Mcfe	Median				\$0.51			\$2,960					
			Simple Average				\$0.55			\$2,922					

MAJORITY OIL ALL U.S. FROM \$10 MILLION TO \$2 BILLION

Announced	Date	Buyer	Seller	Total Price* (\$MM)	Reserve Price (\$MM)	Proved Reserves (MMboe)	Value* (\$ / boe)	Production (Mboe / d)	Net (\$ / boe / d)	Value* (\$ / boe / d)	Region	Proved R/P		Oil **	Gas **
												% Oil			
	8/28/18	Rebellion Energy II LLC¹	Liberty Resources II LLC	100	6	NA	NA	0.4		17,143	Rockies	81%	NA	67.49	2.82
	8/28/18	Vermilion Energy Inc	Massif Oil & Gas LLC	150	76	NA	NA	2.7		28,509	Rockies	65%	NA	67.49	2.82
	8/22/18	U.S. Energy Corp	APEG Energy II LP	18	18	NA	NA	0.4		44,500	Bakken	79%	NA	65.11	2.90
	8/21/18	Magnolia Oil & Gas Corp	Harvest Oil & Gas Corp	191	191	18	10.73	4.8		39,792	GC Onshore	62%	10.2	64.25	2.91
	8/14/18	Carrizo	Devon Energy	215	88	NA	NA	2.5		35,000	Permian	60%	NA	65.75	2.89
	8/8/18	Diamondback Energy	Ajax Resources LLC	1,245	453	NA	NA	12.1		37,432	Permian	88%	NA	64.91	2.89
	8/6/18	Mission Creek Resources LLC	Bonanza Creek Energy Inc	117	117	12	10.14	3.0		39,000	MidCon (S. Arkansas)	69%	10.5	67.03	2.83
	8/1/18	Pacific Energy Development Corp	Hunter Oil Corp	21	5	NA	NA	0.1		47,619	Permian	100%	NA	65.66	2.77
	7/31/18	Undisclosed Buyer	Chaparral	27	27	NA	NA	1.4		19,536	MC (OK Panhandle)	>50%	NA	65.66	2.77
	7/31/18	Undisclosed Buyer	Carrizo	31	22	NA	NA	0.8		26,268	Permian	62%	NA	65.66	2.77
	7/31/18	Scout Energy Partners	Pioneer	201	201	NA	NA	6.3		31,673	MC (TX Panhandle)	70%	NA	65.66	2.77
	7/31/18	Northern Oil and Gas	W Energy Partners	288	234	NA	NA	6.8		34,650	Bakken	75%	NA	65.66	2.77
	7/27/18	Undisclosed Buyer	Ultra Petroleum	75	75	10	7.21	2.0		37,500	Rockies	78%	14.2	66.79	2.79
	7/24/18	American Patriot Oil & Gas Ltd	Foothills; Magnolia; Burnett Petroleum	18	18	4	4.67	0.5		40,444	GC Onshore	80%	23.7	66.70	2.79
	7/18/18	Northern Oil and Gas	Pivotal Petroleum Partners LP	152	152	NA	NA	4.1		37,032	Bakken	75%	NA	64.37	2.74
	7/12/18	PetroShale Inc	Slawson Exploration Company Inc	55	21	9	2.29	0.6		34,700	Bakken	90%	41.6	66.11	2.81
	6/28/18	Royale Energy	Undisclosed Seller	12	12	NA	NA	0.2		63,158	Multiple	91%	NA	68.30	2.90
	6/25/18	Whiting Petroleum; Riverbend O&G	Oasis Petroleum Inc	283	159	NA	NA	4.4		36,148	Bakken	80%	NA	65.06	2.91
	6/20/18	Eagle Energy Partners I LLC	Samson Oil & Gas Limited	40	40	6	6.42	0.9		44,444	Rockies	89%	19.0	64.07	2.94
	6/8/18	Samson Resources II LLC	Undisclosed Seller	16	16	NA	NA	0.5		35,333	Rockies	60%	NA	64.54	2.89
	5/24/18	Callon	Cimarex	570	273	NA	NA	6.8		40,000	Permian	73%	NA	69.05	2.96
	5/16/18	Polaris Production Partners LLC	Nighthawk Energy plc	18	18	1	16.36	0.9		20,089	Rockies	>50%	3.4	70.12	2.84
	5/2/18	Carbon California Co LLC	Seneca Resources Corp	43	43	18	2.44	0.9		47,778	West Coast	79%	53.6	65.12	2.86
	4/26/18	Comstock	Arkoma Drilling LP; Williston Drilling LP	620	500	31	16.35	13.8		36,145	Bakken	74%	6.1	65.53	2.86
	4/26/18	Stanolind Oil & Gas III LP	EQT Corporation	64	64	NA	NA	2.3		27,826	Permian	56%	NA	65.53	2.86
	4/26/18	Northern Oil and Gas	Salt Creek Oil and Gas LLC	60	50	NA	NA	1.4		36,232	Bakken	75%	NA	65.53	2.86
	4/9/18	California Resources Corp	Chevron	511	511	64	7.99	13.3		38,435	West Coast	55%	13.2	62.88	2.86
	4/9/18	Vitesse Energy LLC	Formation Energy LP	190	150	NA	NA	4.2		35,714	Bakken	75%	NA	62.88	2.86
	4/4/18	Petro-Hunt LLC	SM Energy	192	192	29	6.67	6.1		31,475	Bakken	83%	12.9	62.07	2.86
	4/4/18	TRP Energy LLC	SM Energy	100	30	2	15.00	1.0		30,000	Permian	76%	5.5	62.07	2.86
	4/4/18	Presidio Petroleum LLC	Midstates Petroleum Co Inc	58	58	9	6.63	3.9		14,872	MidCon	60%	6.1	62.07	2.86
	4/2/18	NextEra Energy Inc	Comstock	125	90	9	10.20	2.5		35,718	STX (Eagle Ford)	80%	9.6	61.15	2.84
	3/28/18	Protege Energy III	Contango	21	5	NA	NA	0.1		37,967	STX (Eagle Ford)	95%	NA	62.19	2.88
	3/15/18	Sundance Energy	Pioneer; Reliance; Newpek LLC	222	61	66	3.38	1.8		34,006	STX (Eagle Ford)	72%	99.7	59.88	2.86
	2/26/18	Undisclosed Buyer	PDC	40	40	9	4.30	2.3		17,762	APP (Utica)	51%	11.3	61.20	2.84
	2/20/18	Luxe Energy II; Colgate Energy	Concho Resources Inc	280	33	NA	NA	1.0		33,577	Permian	70%	NA	59.78	2.79
	2/14/18	Scout Energy Partners	Linn Energy LLC	120	120	14	8.30	6.3		18,968	Permian	76%	6.3	58.49	2.75
	2/12/18	WildHorse Resource Development Corp	Hawkwood Energy Operating LLC	19	2	NA	NA	0.1		40,000	STX (Eagle Ford)	80%	NA	57.17	2.78
	2/8/18	Undisclosed Buyer	Eagle Energy Inc	27	27	NA	NA	1.0		26,970	STX (Eagle Ford)	>50%	NA	58.40	2.80
	2/6/18	Halcon Resources Corp¹	BTA Oil Producers LLC	104	8	NA	NA	0.2		35,000	Permian	54%	NA	60.79	2.84
	2/6/18	Halcon Resources Corp	Shell	200	39	NA	NA	1.1		35,000	Permian	54%	NA	60.79	2.84
	2/5/18	Enduring Resources IV LLC	WPX Energy Inc	700	700	NA	NA	22.6		30,973	Rockies	69%	NA	60.93	2.84
	2/1/18	ConocoPhillips	Anadarko	400	400	NA	NA	11.2		35,628	Alaska	>50%	NA	63.28	2.94
	1/31/18	Lilis Energy Inc	OneEnergy Partners LLC	65	17	NA	NA	0.4		40,000	Permian	86%	NA	62.97	2.95
	1/29/18	Liberty Mutual Investments	ExL Petroleum Management LLC	207	71	NA	NA	2.0		35,550	Permian	65%	NA	62.76	3.05
	1/25/18	Revolution Resources LLC	Gastar Exploration Inc	108	108	19	5.60	2.8		37,906	MidCon (Hunton)	77%	18.5	63.58	3.04
	1/16/18	Silverpeak Strategic Partners	Linn Energy LLC	132	53	NA	NA	1.5		36,579	Rockies	84%	NA	61.97	2.91
	1/9/18	Northwoods Energy LLC	SM Energy	500	65	NA	NA	2.2		29,768	Rockies	69%	NA	62.01	2.84
	1/5/18	Undisclosed Buyer¹	Centennial Resource Development Inc	141	8	NA	NA	0.2		32,298	Permian	65%	NA	60.65	2.81
	1/2/18	Penn Virginia	Hunt Oil	86	66	12	7.17	1.9		35,027	STX (Eagle Ford)	86%	17.6	59.74	2.88
	12/20/17	Venado Oil & Gas LLC	Cabot	765	583	57	10.19	15.7		37,218	STX (Eagle Ford)	87%	10.0	57.17	2.63
	12/19/17	Scout Energy Partners	Linn Energy LLC	122	122	NA	NA	5.2		23,462	MidCon	74%	NA	56.99	2.72
	12/14/17	Axia Energy II	EP Energy Corp	180	50	NA	NA	1.5		33,580	Rockies	70%	NA	56.55	2.73
	12/12/17	EP Energy Corp	Carrizo	245	110	NA	NA	3.4		32,335	STX (Eagle Ford)	81%	NA	56.75	2.73
	12/11/17	Oasis Petroleum Inc	Forge Energy LLC	946	170	NA	NA	3.5		48,571	Permian	78%	NA	57.63	2.81
	12/5/17	Bill Barrett Corporation	Fifth Creek Energy Co LLC	649	87	113	0.77	2.9		30,000	Rockies	88%	106.6	56.25	2.90
	11/28/17	Royale Energy	Sunny Frog Oil LLC	15	15	9	1.72	0.6		26,087	West Coast	100%	41.5	56.89	3.05
	11/27/17	Verdad Oil & Gas Corp	Carrizo	140	81	NA	NA	2.4		33,576	Rockies	84%	NA	56.87	2.95
	11/20/17	Finley Resources Inc	Bill Barrett Corporation	110	110	12	9.17	2.3		47,069	Rockies	93%	14.1	56.08	3.01
	11/20/17	Statoil	Earthstone Energy Inc	27	27	NA	NA	0.8		35,433	Bakken	82%	NA	56.08	3.01
	11/8/17	SRC Energy Inc	Noble Energy	608	103	18	5.69	4.1		25,000	Rockies	50%	12.0	56.82	3.06
	11/8/17	Exponent Energy III	Mid-Con Energy Partners LP	25	25	3	9.19	0.5		46,296	MidCon	100%	13.8	56.82	3.06
	11/1/17	Approach Resources Inc	Amistad Energy Partners	18	18	NA	NA	0.6		32,818	Permian	51%	NA	54.12	2.94
	10/30/17	Rosehill Resources Inc¹	Whitehorse Energy LLC***	78	1	NA	NA	0.0		28,250	Permian	45%	NA	53.90	2.99
	10/23/17	Valorem Energy LLC	Linn Energy LLC	285	249	NA	NA	8.0		31,106	Bakken	79%	NA	52.08	3.08
	10/13/17	Perdure Petroleum LLC	Chaparral	170	170	72	2.35	5.7		29,825	MidCon	100%	34.7	52.69	3.03
Per boe				Median		\$6.92		\$35,180							
				Simple Average		\$7.34		\$34,598							