

## Decline Rates for Natural Gas and Oil Formations

Code			Central	Central	Central	
			Year 1	Year 2	Year 3+	Braxton
12	Alexander, Benson		-0.31	-0.20	-0.10	Clay
14	Benson		-0.48	-0.08	-0.08	Fayette
16	Benson, Balltown		-0.45	-0.16	-0.12	Nicholas
17	Gordon +		-0.30	-0.07	-0.07	Webster
18	Big Injun		-0.34	-0.13	-0.13	
19	Big Injun, Big Lime		-0.36	-0.13	-0.13	
22	Big Lime		-0.34	-0.34	0.13	
26	Ravencriff		-0.40	-0.40	-0.25	
93	4th Sand		-0.42	-0.32	-0.08	
94	50 Foot		-0.34	-0.26	-0.07	
95	Injun/Weir		-0.51	-0.26	-0.09	
96	Maxton		-0.70	-0.27	-0.08	
109	Trenton/Deeper*		-0.38	-0.23	-0.10	
9	Exception (median)		-0.38	-0.23	-0.10	
10	Non-Filer		-0.30	-0.07	-0.07	

\* New Formation(s) involved in recent production. These will be valued with the Exception rates until decline information is available.

## Decline Rates for Natural Gas and Oil Formations

Code			East	East	East	
			Year 1	Year 2	Year 3+	Berkeley
1	Oriskany		-0.30	-0.30	-0.19	Grant
14	Benson		-0.31	-0.17	-0.12	Greenbrier
20	Benson +		-0.44	-0.20	-0.08	Hampshire
21	Benson, Fifth		-0.29	-0.28	-0.09	Hardy
32	Brallier +		-0.48	-0.20	-0.05	Jefferson
33	Elk, Benson		-0.39	-0.21	-0.08	Mineral
34	Elk, Benson, Riley		-0.53	-0.19	-0.05	Monroe
35	Elk, Benson, Riley +		-0.36	-0.19	-0.11	Morgan
36	Elk, Benson, Balltown		-0.34	-0.18	-0.11	Pendelton
37	Elk, Alexander, Benson		-0.50	-0.07	-0.07	Pocahontas
38	Elk, Alexander, Benson +		-0.40	-0.16	-0.16	Preston
39	Hunterville		-0.31	-0.31	-0.14	Randolph
40	Fox, Haverty		-0.36	-0.21	-0.15	Summers
93	4th Sand		-0.42	-0.32	-0.08	Tucker
94	50 Foot		-0.34	-0.26	-0.07	
95	Injun/Weir		-0.51	-0.26	-0.09	
96	Maxton		-0.70	-0.27	-0.08	
9	Exception (median)		-0.39	-0.21	-0.09	
10	Non-Filer		-0.29	-0.07	-0.05	

## Decline Rates for Natural Gas and Oil Formations

Code			North	North	North	
			<b>Year 1</b>	<b>Year 2</b>	<b>Year 3+</b>	<b>Brooke</b>
11	Gordon		-0.47	-0.31	-0.09	<b>Hancock</b>
13	Alexander, Benson, Riley		-0.26	-0.16	-0.15	<b>Marshall</b>
15	Benson, Riley		-0.18	-0.16	-0.06	<b>Ohio</b>
93	4th Sand		-0.42	-0.32	-0.08	<b>Tyler</b>
94	50 Foot		-0.34	-0.26	-0.07	<b>Wetzel</b>
95	Injun/Weir		-0.51	-0.26	-0.09	
96	Maxton		-0.70	-0.27	-0.08	
97	Methane (vertical)		-0.23	-0.08	-0.05	
9	Exception (median)		-0.38	-0.26	-0.08	
10	Non-Filer		-0.18	-0.16	-0.06	

Decline Rates for Natural Gas and Oil Formations

Code		North Central	North Central	North Central	
		Year 1	Year 2	Year 3+	
					<b>Barbour</b>
11	Gordon	-0.41	-0.14	-0.12	<b>Doddridge</b>
12	Alexander, Benson	-0.37	-0.19	-0.11	<b>Gilmer</b>
13	Alexander, Benson, Riley	-0.40	-0.28	-0.05	<b>Harrison</b>
14	Benson	-0.31	-0.17	-0.12	<b>Lewis</b>
15	Benson, Riley	-0.34	-0.17	-0.14	<b>Marion</b>
18	Big Injun	-0.36	-0.16	-0.13	<b>Monongalia</b>
21	Benson, Fifth	-0.31	-0.20	-0.14	<b>Taylor</b>
28	Weir	-0.34	-0.34	-0.07	<b>Upshur</b>
29	Weir +	-0.28	-0.28	-0.23	
33	Elk, Benson	-0.34	-0.16	-0.11	
34	Elk, Benson, Riley	-0.42	-0.27	-0.08	
37	Elk, Alexander, Benson	-0.49	-0.23	-0.08	
38	Elk, Alexander, Benson +	-0.38	-0.20	-0.12	
40	Fox, Haverty	-0.46	-0.16	-0.08	
50	Rhinestreet	-0.28	-0.03	-0.03	
57	Alexander, Benson, Balltown	-0.39	-0.26	-0.08	
58	Alexander	-0.35	-0.20	-0.10	
59	Alexander +	-0.39	-0.22	-0.10	
60	Alexander, Benson, Riley+	-0.39	-0.35	-0.12	
61	Balltown	-0.35	-0.20	-0.10	
62	Balltown, Speechley	-0.28	-0.22	-0.10	
63	Balltown, Speechley +	-0.30	-0.13	-0.10	
64	Benson, Balltown, Speechley	-0.28	-0.22	-0.09	
65	Benson, Bradford	-0.37	-0.20	-0.10	
66	Benson, Balltown	-0.29	-0.23	-0.11	
67	Benson, Riley +	-0.38	-0.14	-0.10	
68	Benson, Speechley	-0.30	-0.22	-0.14	
69	Brallier, Elk	-0.42	-0.20	-0.13	
70	Brallier	-0.40	-0.22	-0.15	
71	Deeper/Onondago or Oriskany/Heiderberg	-0.24	-0.24	-0.03	
72	Elk, Alexander	-0.42	-0.22	-0.09	
73	Elk, Benson +	-0.38	-0.20	-0.12	
74	Elk	-0.43	-0.12	-0.10	
75	Elk, Riley	-0.60	-0.35	-0.17	
76	Fox +	-0.46	-0.18	-0.09	
77	Haverty, Elk, Benson (no Alexander)	-0.35	-0.16	-0.16	
78	Haverty	-0.45	-0.15	-0.15	
79	Riley	-0.44	-0.22	-0.10	
80	Speechley	-0.30	-0.18	-0.09	
81	Alexander, Benson, Speechley	-0.39	-0.24	-0.10	
82	Haverty, Elk, Alexander	-0.47	-0.14	-0.14	
85	Fifth Oil	-0.45	-0.25	-0.22	
87	Bayard All	-0.30	-0.20	-0.05	
88	Fifth	-0.29	-0.18	-0.12	
89	Fifth +	-0.25	-0.15	-0.13	
90	Gordon/Injun All	-0.41	-0.23	-0.23	
91	Squaw	-0.37	-0.31	-0.06	
92	Injun +	-0.34	-0.22	-0.22	
93	4th Sand	-0.42	-0.32	-0.08	
94	50 Foot	-0.34	-0.26	-0.07	
95	Injun/Weir	-0.51	-0.26	-0.09	
96	Maxton	-0.70	-0.27	-0.08	
97	Methane (vertical)	-0.23	-0.08	-0.05	
109	Trenton/Deeper*	-0.37	-0.20	-0.10	
9	Exception (median)	-0.37	-0.20	-0.10	
10	Non-Filer	-0.23	-0.03	-0.03	
98	Methane (Horizontal)	-0.50	-0.60	-0.50	

\* New Formation(s) involved in recent production. These will be valued with the Exception rates until decline information is available.

Decline Rates for Natural Gas and Oil Formations

Code		North	North	North	Pleasants
		West	West	West	
		Year 1	Year 2	Year 3+	
2	Huron, Rhinestreet	-0.41	-0.26	-0.07	Ritchie
4	Huron	-0.42	-0.24	-0.14	Wood
5	Huron, Shale, Above Huron	-0.39	-0.25	-0.14	
8	Berea	-0.31	-0.15	-0.15	
11	Gordon	-0.38	-0.10	-0.10	
12	Alexander, Benson (No Riley)	-0.34	-0.23	-0.10	
13	Alexander, Benson, Riley	-0.32	-0.20	-0.10	
14	Benson	-0.19	-0.19	-0.10	
44	Rhinestreet, Huron, Shallow Shale	-0.43	-0.28	-0.11	
47	Alexander, Riley, (no Benson)	-0.41	-0.05	-0.05	
48	Rhinestreet, Alexander, Benson, Riley	-0.31	-0.24	-0.10	
49	Weir, Squaw, Big Injun	-0.27	-0.17	-0.07	
50	Rhinestreet	-0.40	-0.27	-0.27	
51	Rhinestreet +	-0.36	-0.21	-0.10	
52	All Upper Devonian (undiv)	-0.48	-0.33	-0.19	
53	Huron, Chemung	-0.35	-0.11	-0.09	
54	Huron, Hampshire, Pocono	-0.12	-0.12	-0.11	
55	Upper Devonian (above Huron)	-0.46	-0.33	-0.23	
56	Chemung Sands=Riley,Bradford,Balltown,Speechley&Warren(no Benson or Alexander)	-0.28	-0.18	-0.10	
83	Huron Oil	-0.74	-0.44	-0.40	
93	4th Sand	-0.42	-0.32	-0.08	
94	50 Foot	-0.34	-0.26	-0.07	
95	Injun/Weir	-0.51	-0.26	-0.09	
96	Maxton	-0.70	-0.27	-0.08	
109	Trenton/Deeper*	-0.39	-0.24	-0.10	
9	Exception (median)	-0.39	-0.24	-0.10	
10	Non-Filer	-0.12	-0.05	-0.05	

\* New Formation(s) involved in recent production. These will be valued with the Exception rates until decline information is available.

## Annual Production Rate Changes for Natural Gas and Oil Formations

Code		South	South	South	
		Year 1	Year 2	Year 3+	McDowell
8	Berea	-0.34	-0.15	-0.15	Mercer
22	Big Lime	-0.31	-0.19	-0.07	Raleigh
23	Big Lime, Maxton	-0.31	-0.19	-0.07	Wyoming
24	Big Lime, Ravencloff	-0.29	-0.29	-0.17	
25	Berea +	-0.37	-0.12	-0.08	
26	Ravencloff	-0.40	-0.08	-0.07	
28	Weir	-0.44	-0.20	-0.10	
29	Weir +	-0.28	-0.21	-0.08	
30	Weir, Big Lime	-0.37	-0.19	-0.13	
42	Maxton, Ravencloff	-0.40	-0.08	-0.07	
93	4th Sand	-0.42	-0.32	-0.08	
94	50 Foot	-0.34	-0.26	-0.07	
95	Injun/Weir	-0.51	-0.26	-0.09	
96	Maxton	-0.27	-0.13	-0.09	
97	Methane (Vertical)	+0.03	+0.10	-0.05	
9	Exception (median)	-0.36	-0.19	-0.08	
10	Non-Filer	-0.23	-0.08	-0.05	
98	Methane (Horizontal)	-0.50	-0.60	-0.50	

## Decline Rates for Natural Gas and Oil Formations

Code			South Central	South Central	South Central	
			Year 1	Year 2	Year 3+	Boone
3	Devonian Shale		-0.23	-0.08	-0.05	Kanawha
4	Huron		-0.31	-0.15	-0.04	
8	Berea		-0.23	-0.14	-0.09	
18	Big Injun		-0.29	-0.25	-0.12	
27	Huron, Shales above Huron		-0.21	-0.08	-0.05	
28	Weir		-0.30	-0.21	-0.14	
29	Weir +		-0.31	-0.25	-0.09	
31	Devonian Shales +		-0.27	-0.07	-0.05	
86	Big Injun-Oil		-0.19	-0.18	-0.10	
93	4th Sand		-0.42	-0.32	-0.08	
94	50 Foot		-0.34	-0.26	-0.07	
95	Injun/Weir		-0.51	-0.26	-0.09	
96	Maxton		-0.70	-0.27	-0.08	
109	Trenton/Deeper*		-0.30	-0.21	-0.08	
9	Exception (median)		-0.30	-0.21	-0.08	
10	Non-Filer		-0.19	-0.07	-0.04	

\* New Formation(s) involved in recent production. These will be valued with the Exception rates until decline information is available.

## Decline Rates for Natural Gas and Oil Formations

Code			South West	South West	South West	
			<b>Year 1</b>	<b>Year 2</b>	<b>Year 3+</b>	<b>Cabell</b>
3	Devonian Shale		-0.31	-0.15	-0.04	<b>Lincoln</b>
8	Berea		-0.36	-0.11	-0.11	<b>Logan</b>
18	Big Injun		-0.38	-0.22	-0.04	<b>Mingo</b>
22	Big Lime		-0.19	-0.19	-0.19	<b>Wayne</b>
43	Berea, Big Lime		-0.18	-0.18	-0.18	
93	4th Sand		-0.42	-0.32	-0.08	
94	50 Foot		-0.34	-0.26	-0.07	
95	Injun/Weir		-0.51	-0.26	-0.09	
96	Maxton		-0.70	-0.27	-0.08	
109	Trenton/Deeper*		-0.36	-0.22	-0.08	
9	Exception (median)		-0.36	-0.22	-0.08	
10	Non-Filer		-0.18	-0.11	-0.04	

\* New Formation(s) involved in recent production. These will be valued with the Exception rates until decline information is available.

## Decline Rates for Natural Gas and Oil Formations

Code			West Central	West Central	West Central	
			Year 1	Year 2	Year 3+	Calhoun
2	Huron, Rhinestreet		-0.49	-0.11	-0.06	Roane
4	Huron		-0.33	-0.22	-0.14	Wirt
27	Huron, Shales above Huron		-0.42	-0.23	-0.12	
44	Rhinestreet, Huron, Shallow Shale		-0.51	-0.14	-0.11	
45	Devonian Shale, Pocono		-0.25	-0.17	-0.12	
46	Pocono		-0.29	-0.25	-0.12	
84	Big Injun - Oil		-0.41	-0.41	-0.11	
93	4th Sand		-0.42	-0.32	-0.08	
94	50 Foot		-0.34	-0.26	-0.07	
95	Injun/Weir		-0.51	-0.26	-0.09	
96	Maxton		-0.70	-0.27	-0.08	
109	Trenton/Deeper*		-0.42	-0.25	-0.11	
9	Exception (median)		-0.42	-0.25	-0.11	
10	Non-Filer		-0.25	-0.11	-0.06	

\* New Formation(s) involved in recent production. These will be valued with the Exception rates until decline information is available.

## Decline Rates for Natural Gas and Oil Formations

Code		West	West	West	
		Year 1	Year 2	Year 3+	Jackson
1	Oriskany	-0.40	-0.40	-0.29	Mason
2	Huron, Rhinestreet	-0.13	-0.12	-0.03	Putnam
3	Devonian Shale	-0.31	-0.15	-0.04	
4	Huron	-0.29	-0.14	-0.05	
5	Huron, Shale, Above Huron	-0.38	-0.15	-0.06	
6	Huron, Berea	-0.29	-0.08	-0.08	
7	Berea, Devonian Shales	-0.08	-0.08	-0.08	
8	Berea	-0.36	-0.16	-0.16	
93	4th Sand	-0.42	-0.32	-0.08	
94	50 Foot	-0.34	-0.26	-0.07	
95	Injun/Weir	-0.51	-0.26	-0.09	
96	Maxton	-0.70	-0.27	-0.08	
109	Trenton/Deeper*	-0.35	-0.16	-0.08	
9	Exception (median)	-0.35	-0.16	-0.08	
10	Non-Filer	-0.08	-0.08	-0.03	

\* New Formation(s) involved in recent production. These will be valued with the Exception rates until decline information is available.