APPENDIX F — AIR QUALITY IMPACT TABLES

Table F-1 Summary of Maximum Modeled Near-field NO_2 Concentrations Compared to Ambient Air Quality Standards and PSD Class II Increments, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative	Averaging Time	Direct Modeled Impact[1]	PSD Class II Increment[1]	Background Concentration[1]	Total Concentration[1]	NAAQS/ WAAQS[1]	Percent of NAAQS/ WAAQS
No Action	Annual	nm[2]	25	3.4	3.4	100	3
Proposed Action[3]	Annual	18.9	25	3.4	22.3	100	22
Alternative A[3]	Annual	18.9	25	3.4	22.3	100	22
Alternative B[3]	Annual	18.9	25	3.4	22.3	100	22
Alternative C[4]	Annual	18.6	25	3.4	22.0	100	22
Alternative D[5]	Annual	18.8	25	3.4	22.2	100	22
Alternative E[3]	Annual	18.9	25	3.4	22.3	100	22
Alternative F[3]	Annual	18.9	25	3.4	22.3	100	22
Alternative G[3]	Annual	18.9	25	3.4	22.3	100	22
Preferred Alternative[3]	Annual	18.9	25	3.4	22.3	100	22

1 In $\mu g/m^3$.
2 nm = not modeled.
3 Assumes 3,100 wells.
4 Assumes 1,250 wells.
5 Assumes 2,200 wells.

Table F-2 Summary of Maximum Modeled Near-field CO Concentrations Compared to Ambient Air Quality Standards, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative	Averaging Time	Direct Modeled Impact[1]	Background Concentration[1]	Total Concentration[1]	NAAQS/ WAAQS[1]	Percent of NAAQS/ WAAQS
No Action	1-hour	nm[2]	3,336	3,336.0	40,000	8
	8-hour	nm[2]	1,381	1,381.0	10,000	14
Proposed Action[3]	1-hour	459.1	3,336	3,795.1	40,000	9
	8-hour	266.0	1,381	1,647.0	10,000	16
Alternative A[3]	1-hour	459.1	3,336	3,795.1	40,000	9
	8-hour	266.0	1,381	1,647.0	10,000	16
Alternative B[3]	1-hour	459.1	3,336	3,795.1	40,000	9
	8-hour	266.0	1,381	1,647.0	10,000	16
Alternative C[4]	1-hour	439.0	3,336	3,775.0	40,000	9
	8-hour	262.1	1,381	1,643.1	10,000	16
Alternative D[5]	1-hour	449.3	3,336	3,785.3	40,000	9
	8-hour	264.1	1,381	1,645.1	10,000	16
Alternative E[3]	1-hour	459.1	3,336	3,795.1	40,000	9
	8-hour	266.0	1,381	1,647.0	10,000	16
Alternative F[3]	1-hour	459.1	3,336	3,795.1	40,000	9
	8-hour	266.0	1,381	1,647.0	10,000	16
Alternative G[3]	1-hour	459.1	3,336	3,795.1	40,000	9
	8-hour	266.0	1,381	1,647.0	10,000	16
Preferred Alternative[3]	1-hour	459.1	3,336	3,795.1	40,000	9
	8-hour	266.0	1,381	1,647.0	10,000	16

1 In $\mu g/m^3$.
2 nm = not modeled.
3 Assumes 3,100 wells.
4 Assumes 1,250 wells.
5 Assumes 2,200 wells.

Table F-3 Summary of Maximum Modeled Near-field SO_2 Concentrations Compared to Ambient Air Quality Standards, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative	Averaging Time	Direct Modeled Impact[1]	Background Concentration[1]	Total Concentration[1]	NAAQS/ WAAQS[1]	Percent of NAAQS/ WAAQS
No Action	3-hour	nm[2]	132	132.0	1,300	10
	24-hour	nm[2]	43	43.0	365/260	12/17
	Annual	nm[2]	9	9.0	80/60	11/15
Proposed Action[3]	3-hour	103.8	132	235.8	1,300	18
	24-hour	36.7	43	79.7	365/260	22/31
	Annual	5.2	9	14.2	80/60	18/24
Alternative A[3]	3-hour	103.8	132	235.8	1,300	18
	24-hour	36.7	43	79.7	365/260	22/31
	Annual	5.2	9	14.2	80/60	18/24
Alternative B[4]	3-hour	128.3	132	260.3	1,300	20
	24-hour	45.3	43	88.3	365/260	24/34
	Annual	6.4	9	15.4	80/60	19/26
Alternative C[3]	3-hour	103.8	132	235.8	1,300	18
	24-hour	36.7	43	79.7	365/260	22/31
	Annual	5.2	9	14.2	80/60	18/24
Alternative D[3]	3-hour	103.8	132	235.8	1,300	18
	24-hour	36.7	43	79.7	365/260	22/31
	Annual	5.2	9	14.2	80/60	18/24
Alternative E[4]	3-hour	128.3	132	260.3	1,300	20
	24-hour	45.3	43	88.3	365/260	24/34
	Annual	6.4	9	15.4	80/60	19/26
Alternative F[4]	3-hour	128.3	132	260.3	1,300	20
	24-hour	45.3	43	88.3	365/260	24/34
	Annual	6.4	9	15.4	80/60	19/26
Alternative G[4]	3-hour	128.3	132	260.3	1,300	20
	24-hour	45.3	43	88.3	365/260	24/34
	Annual	6.4	9	15.4	80/60	19/26
Preferred Alternative[4]	3-hour	128.3	132	260.3	1,300	20
	24-hour	45.3	43	88.3	365/260	24/34
	Annual	6.4	9	15.4	80/60	19/26

[1] In $\mu g/m^3$.
[2] nm = not modeled.
[3] Assumes straight drilling.
[4] Assumes directional drilling.

Table F-4 Summary of Maximum Modeled Near-field PM_{10} Concentrations Compared to Ambient Air Quality Standards, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative	Averaging Time	Direct Modeled Impact[1]	Background Concentration[1]	Total Concentration[1]	NAAQS/ WAAQS[1]	Percent of NAAQS/ WAAQS
No Action	24-hour	nm[2]	33	33.0	150	22
	Annual	nm[2]	16	16.0	50	32
Proposed Action[3]	24-hour	74.1	33	107.1	150	71
	Annual	3.4	16	19.4	50	39
Alternative A[3]	24-hour	74.1	33	107.1	150	71
	Annual	3.4	16	19.4	50	39
Alternative B[4]	24-hour	102.1	33	135.1	150	90
	Annual	5.6	16	21.6	50	43
Alternative C[3]	24-hour	74.1	33	107.1	150	71
	Annual	3.4	16	19.4	50	39
Alternative D[3]	24-hour	74.1	33	107.1	150	71
	Annual	3.4	16	19.4	50	39
Alternative E[4]	24-hour	102.1	33	135.1	150	90
	Annual	5.6	16	21.6	50	43
Alternative F[5]	24-hour	94.0	33	127.0	150	85
	Annual	4.7	16	20.7	50	41
Alternative G[3]	24-hour	74.1	33	107.1	150	71
	Annual	3.4	16	19.4	50	39
Preferred Alternative[5]	24-hour	94.0	33	127.0	150	85
	Annual	4.7	16	20.7	50	41

[1] In $\mu g/m^3$.
[2] nm = not modeled.
[3] Assumes 3.8-acre well pads.
[4] Assumes 10.0-acre well pads.
[5] Assumes 7.0-acre well pads.

Table F-5 Summary of Maximum Modeled Near-field $PM_{2.5}$ Concentrations Compared to Ambient Air Quality Standards, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative	Averaging Time	Direct Modeled Impact[1]	Background Concentration[1]	Total Concentration[1]	NAAQS/ WAAQS[1,2]	Percent of NAAQS/ WAAQS
No Action	24-hour	nm[3]	13	13.0	65	20
	Annual	nm[3]	5	5.0	15	33
Proposed Action[4]	24-hour	27.0	13	40.0	65	62
	Annual	1.3	5	6.3	15	42
Alternative A[4]	24-hour	27.0	13	40.0	65	62
	Annual	1.3	5	6.3	15	42
Alternative B[5]	24-hour	32.2	13	45.2	65	70
	Annual	1.8	5	6.8	15	45
Alternative C[4]	24-hour	27.0	13	40.0	65	62
	Annual	1.3	5	6.3	15	42
Alternative D[4]	24-hour	27.0	13	40.0	65	62
	Annual	1.3	5	6.3	15	42
Alternative E[5]	24-hour	32.2	13	45.2	65	70
	Annual	1.8	5	6.8	15	45
Alternative F[6]	24-hour	31.0	13	44.0	65	68
	Annual	1.6	5	6.6	15	44
Alternative G[4]	24-hour	27.0	13	40.0	65	62
	Annual	1.3	5	6.3	15	42
Preferred Alternative[6]	24-hour	31.0	13	44.0	65	68
	Annual	1.6	5	6.6	15	44

1 In $\mu g/m^3$.
2 The WAAQS are not yet enforced in Wyoming per Wyoming Air Quality Standards and Regulations (WAQSR) Chapter 2, Section 2(b)(b).
3 nm = not modeled.
4 Assumes 3.8-acre well pads.
5 Assumes 10-acre well pads.
6 Assumes 7-acre well pads.

Table F-6 Summary of Maximum Modeled Near-field O_3 Concentrations Compared to Ambient Air Quality Standards, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative	Averaging Time	Direct Modeled Impact[1]	Background Concentration[1]	Total Concentration[1]	NAAQS/ WAAQS[1]	Percent of NAAQS/ WAAQS
No Action	1-hour	nm[2]	75.2	75.2	235	32
	8-hour	nm[2]	75.2	75.2	157	48
All Alternatives	1-hour	111.8	75.2	187.0	235	80
	8-hour	78.3	75.2	153.5	157	98

1 In $\mu g/m^3$.
2 nm = not modeled.

Table F-7 Summary of Maximum Modeled HAP Concentrations from Direct Project Sources, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

		Benzene			Toluene			Ethylbenzene			Xylene			n-Hexane			Formaldehyde		
Alternative	Averaging Period	Health-based Level[1,2]	Concentration[2]	Percent of Health-based Standard	Health-based Level[1,2]	Concentration[2]	Percent of Health-based Standard	Health-based Level[1,2]	Concentration[2]	Percent of Health-based Standard	Health-based Level[1,2]	Concentration[2]	Percent of Health-based Standard	Health-based Level[1,2]	Concentration[2]	Percent of Health-based Standard	Health-based Level[1,2]	Concentration[2]	Percent of Health-based Standard
No Action[3]	1-Hour	1,300	0.0	0.0	37,000	0.0	0.0	35,000	0.0	0.0	22,000	0.0	0.0	39,000	0.0	0.0	94	0.0	0.0
	Annual	30	0.0	0.0	400	0.0	0.0	1,000	0.0	0.0	430	0.0	0.0	200	0.0	0.0	9.8	0.0	0.0
Proposed Action[4]	1-Hour	1,300	996	76.6	37,000	1,994	5.4	35,000	109	0.3	22,000	1,085	4.9	39,000	536	1.4	94	31.9	33.9
	Annual	30	0.85	2.8	400	1.73	0.4	1,000	0.09	0.01	430	0.93	0.2	200	0.35	0.2	9.8	0.02	0.2
Alternative A[4]	1-Hour	1,300	996	76.6	37,000	1,994	5.4	35,000	109	0.3	22,000	1,085	4.9	39,000	536	1.4	94	31.9	33.9
	Annual	30	0.85	2.8	400	1.73	0.4	1,000	0.09	0.01	430	0.93	0.2	200	0.35	0.2	9.8	0.02	0.2
Alternative B[5]	1-Hour	1,300	309	23.8	37,000	619	1.7	35,000	34	0.1	22,000	337	1.5	39,000	166	0.4	94	31.9	33.9
	Annual	30	0.85	2.8	400	1.73	0.4	1,000	0.09	0.01	430	0.93	0.2	200	0.35	0.2	9.8	0.02	0.2
Alternative C[6]	1-Hour	1,300	590	45.4	37,000	1,181	3.2	35,000	64	0.2	22,000	643	2.9	39,000	317	0.8	94	31.9	33.9
	Annual	30	0.35	1.2	400	0.71	0.2	1,000	0.04	0.004	430	0.38	0.09	200	0.14	0.07	9.8	0.02	0.2
Alternative D[7]	1-Hour	1,300	566	43.5	37,000	1,132	3.1	35,000	62	0.2	22,000	616	2.8	39,000	304	0.8	94	31.9	33.9
	Annual	30	0.61	2.0	400	1.23	0.3	1,000	0.07	0.007	430	0.66	0.15	200	0.25	0.13	9.8	0.02	0.2
Alternative E[5]	1-Hour	1,300	309	23.8	37,000	619	1.7	35,000	34	0.1	22,000	337	1.5	39,000	166	0.4	94	31.9	33.9
	Annual	30	0.85	2.8	400	1.73	0.4	1,000	0.09	0.01	430	0.93	0.2	200	0.35	0.2	9.8	0.02	0.2
Alternative F[6]	1-Hour	1,300	590	45.4	37,000	1,181	3.2	35,000	64	0.2	22,000	643	2.9	39,000	317	0.8	94	31.9	33.9
	Annual	30	0.85	2.8	400	1.73	0.4	1,000	0.09	0.01	430	0.93	0.2	200	0.35	0.2	9.8	0.02	0.2
Alternative G[7]	1-Hour	1,300	566	43.5	37,000	1,132	3.1	35,000	62	0.2	22,000	616	2.8	39,000	304	0.8	94	31.9	33.9
	Annual	30	0.85	2.8	400	1.73	0.4	1,000	0.09	0.01	430	0.93	0.2	200	0.35	0.2	9.8	0.02	0.2
Preferred Alternative[5]	1-Hour	1,300	309	23.8	37,000	619	1.7	35,000	34	0.1	22,000	337	1.5	39,000	166	0.4	94	31.9	33.9
	Annual	30	0.85	2.8	400	1.73	0.4	1,000	0.09	0.01	430	0.93	0.2	200	0.35	0.2	9.8	0.02	0.2

1 Based on EPA (2002).
2 In µg/m^3.
3 No Action Alternative was not modeled.
4 Assumes 5-acre well spacing.
5 Assumes 40-acre well spacing.
6 Assumes 20-acre well spacing.
7 Assumes 10-acre well spacing.

Table F-8 Summary of Long-Term MLE and MEI Cancer Risk Analyses, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.[1]

			MLE			MEI		
Alternative	HAP Constituent	Modeled Concentration[2]	Unit Risk Factor[3]	Exposure Adjustment Factor	Cancer Risk	Unit Risk Factor[3]	Exposure Adjustment Factor	Cancer Risk
No Action[3]	Benzene	0.0	7.8E-06	0.0949	--	7.8E-06	0.71	--
	Formaldehyde	0.0	1.3E-05	0.0949	--	1.3E-05	0.71	--
	Total Combined							
Proposed Action	Benzene	0.85	7.8E-06	0.0949	6.3E-07	7.8E-06	0.71	4.73E-06
	Formaldehyde	0.02	1.3E-05	0.0949	2.0E-08	1.3E-05	0.71	1.80E-07
	Total Combined				6.5E-07			
Alternative A	Benzene	0.85	7.8E-06	0.0949	6.3E-07	7.8E-06	0.71	4.73E-06
	Formaldehyde	0.02	1.3E-05	0.0949	2.0E-08	1.3E-05	0.71	1.80E-07
	Total Combined				6.5E-07			
Alternative B	Benzene	0.85	7.8E-06	0.0949	6.3E-07	7.8E-06	0.71	4.73E-06
	Formaldehyde	0.02	1.3E-05	0.0949	2.0E-08	1.3E-05	0.71	1.80E-07
	Total Combined				6.5E-07			
Alternative C	Benzene	0.35	7.8E-06	0.0949	2.6E-07	7.8E-06	0.71	1.94E-06
	Formaldehyde	0.02	1.3E-05	0.0949	2.0E-08	1.3E-05	0.71	1.80E-07
	Total Combined				2.8E-07			
Alternative D	Benzene	0.61	7.8E-06	0.0949	4.5E-07	7.8E-06	0.71	3.38E-06
	Formaldehyde	0.02	1.3E-05	0.0949	2.0E-08	1.3E-05	0.71	1.80E-07
	Total Combined				4.7E-07	4.9E-06		306E-06
Alternative E	Benzene	0.85	7.8E-06	0.0949	6.3E-07	7.8E-06	0.71	4.73E-06
	Formaldehyde	0.02	1.3E-05	0.0949	2.0E-08	1.3E-05	0.71	1.80E-07
	Total Combined				6.5E-07	4.9E-06		
Alternative F	Benzene	0.85	7.8E-06	0.0949	6.3E-07	7.8E-06	0.71	4.73E-06
	Formaldehyde	0.02	1.3E-05	0.0949	2.0E-08	1.3E-05	0.71	1.80E-07
	Total Combined				6.5E-07	4.9E-06		
Alternative G	Benzene	0.85	7.8E-06	0.0949	6.3E-07	7.8E-06	0.71	4.73E-06
	Formaldehyde	0.02	1.3E-05	0.0949	2.0E-08	1.3E-05	0.71	1.80E-07
	Total Combined				6.5E-07	2.1E-06		
Preferred Alternative	Benzene	0.85	7.8E-06	0.0949	6.3E-07	7.8E-06	0.71	4.73E-06
	Formaldehyde	0.02	1.3E-05	0.0949	2.0E-08	1.3E-05	0.71	1.80E-07
	Total Combined			6.5E-07			4.9E-06	
						4.9E-06		
						4.9E-06		
						4.9E-06		

[1] Based on EPA (1993, 1997).
[2] In µg/m^3.
[3] In 1 ÷ µg/m^3.
[4] No Action Alternative was not modeled.

Table F-9 Project and Non-Project Emissions (tons/yr) Included in Far-field Analysis, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.[1]

Source Category	NO_X	SO_2	PM_{10}	$PM_{2.5}$
Project Sources				
3,100 wells – full field production (all alternatives with 3,100 producing wells)	377.6	0.7	736.1	134.1
No Action	14.5	0.0	47.0	8.6
3,100 wells, straight drilling (approximates Alternative A)				
WDR 250 wells/yr (approximates Proposed Action)	1,627.7	28.3	949.1	205.6
WDR 150 wells/yr	1,154.8	17.2	864.0	177.3
WDR 75 wells/yr	766.2	9.0	800.0	156.0
3,100 Wells, directional drilling (approximates Alternative B)				
WDR 250 wells/yr	1,828.3	34.4	960.5	217.1
WDR 150 wells/yr	1,275.2	20.9	870.8	184.1
WDR 75 wells/yr	826.4	10.8	803.4	159.4
1,250 Wells, straight drilling (approximates Alternative C)				
WDR 250 wells/yr	1,528.3	27.8	509.9	125.3
WDR 150 wells/yr	1,055.4	16.8	424.7	96.9
WDR 75 wells/yr	666.8	8.5	360.7	75.6
3,100 wells, 50% straight drilling, 50% directional drilling (approximates Alternative F)				
WDR 250 wells/yr	1,728.0	31.3	954.8	211.4
WDR 150 wells/yr	1,214.9	19.1	867.4	180.7
WDR 75 wells/yr	800.3	9.9	802.0	158.0
Non-Project Sources				
RFD	3,166.5	56.1	84.0	81.9
RFFA	486.3	-1,407.0	-1,282.8	-586.6
State-permitted	4,098.9	-61.4	559.2	516.6

[1] Non-Project emissions sources (reasonably foreseeable development [RFD] and reasonably foreseeable future actions [RFFA]) are described in Section 4.1.2.11; WDR = well development rate.

Table F-10 Summary of Maximum Modeled NO_2 Concentration Impacts at PSD Class I and Sensitive PSD Class II Areas from Direct Project Sources for Comparison to Ambient Air Quality Standards[1], Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative or Development Phase	WDR	Bridger Wilderness Class I		Fitzpatrick Wilderness Class I		Popo Agie Wilderness Class II		Wind River Roadless Area Class II		Grand Teton National Park Class I		Teton Wilderness Class I		Yellowstone National Park Class I		Washakie Wilderness Area Class I	
		Direct Modeled Impact[2]	Total Concen-tration[3]	Direct Modeled Impact[2]	Total Concen-tration[3]	Direct Modeled Impact[2]	Total Concen-tration[3]	Direct Modeled Impact[2]	Total Concen-tration[3]	Direct Modeled Impact[2]	Total Concen-tration[3]	Direct Modeled Impact[2]	Total Concen-tration[3]	Direct Modeled Impact[2]	Total Concen-tration[3]	Direct Modeled Impact[2]	Total Concen-tration[3]
		Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual
No Action[4]	--	--	3.40	--	3.40	--	3.40	--	3.40	--	3.40	--	3.40	--	3.40	--	3.40
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	0.026	3.43	0.001	3.40	0.009	3.41	0.006	3.41	0.000	3.40	0.000	3.40	0.000	3.40	0.000	3.40
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	0.132	3.53	0.006	3.41	0.044	3.44	0.026	3.43	0.002	3.40	0.001	3.40	0.001	3.40	0.001	3.40
Alternative A	150	0.091	3.49	0.004	3.40	0.031	3.43	0.019	3.42	0.001	3.40	0.001	3.40	0.000	3.40	0.001	3.40
	75	0.057	3.46	0.003	3.40	0.021	3.42	0.012	3.41	0.001	3.40	0.000	3.40	0.000	3.40	0.000	3.40
Alternative B	250	0.153	3.55	0.006	3.41	0.050	3.45	0.030	3.43	0.002	3.40	0.001	3.40	0.001	3.40	0.001	3.40
	150	0.103	3.50	0.004	3.40	0.035	3.43	0.021	3.42	0.001	3.40	0.001	3.40	0.000	3.40	0.001	3.40
	75	0.062	3.46	0.003	3.40	0.023	3.42	0.013	3.41	0.001	3.40	0.000	3.40	0.000	3.40	0.001	3.40
Alternative C	250	0.121	3.52	0.005	3.41	0.041	3.44	0.024	3.42	0.002	3.40	0.001	3.40	0.001	3.40	0.001	3.40
	150	0.080	3.48	0.003	3.40	0.028	3.43	0.016	3.42	0.001	3.40	0.000	3.40	0.000	3.40	0.001	3.40
	75	0.045	3.45	0.002	3.40	0.017	3.42	0.010	3.41	0.001	3.40	0.000	3.40	0.000	3.40	0.000	3.40
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	0.141	3.54	0.006	3.41	0.046	3.45	0.027	3.43	0.002	3.40	0.001	3.40	0.001	3.40	0.001	3.40
	150	0.096	3.50	0.004	3.40	0.033	3.43	0.019	3.42	0.001	3.40	0.001	3.40	0.000	3.40	0.001	3.40
	75	0.063	3.46	0.003	3.40	0.023	3.42	0.013	3.41	0.001	3.40	0.000	3.40	0.000	3.40	0.001	3.40
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] Ambient Air Quality Standards: Annual NAAQS/WAAQS = 100 µg/m^3.
[2] In µg/m^3.
[3] Total concentration includes direct modeled impact and background concentration; annual background NO_2 concentration = 3.4 µg/m^3.
[4] No Action Alternative was not modeled; total concentration represents background concentration only.

Table F-11 Summary of Maximum Modeled SO_2 Concentrations at PSD Class I and Sensitive PSD Class II Areas from Direct Project Sources for Comparison to Ambient Air Quality Standards[1], Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative or Development Phase	WDR	Bridger Wilderness Class I					Fitzpatrick Wilderness Class I					Popo Agie Wilderness Class II					Wind River Roadless Area Class II				
		Direct Modeled Impact[2]			Total Concentration[3]		Direct Modeled Impact[2]			Total Concentration[3]		Direct Modeled Impact[2]			Total Concentration[3]		Direct Modeled Impact[2]			Total Concentration[3]	
		3-hr	24-hr	Annual	3-hr	24-hr	3-hr	24-hr	Annual	3-hr	24-hr	3-hr	24-hr	Annual	3-hr	24-hr	3-hr	24-hr	Annual	3-hr	Annual
No Action[4]	--	--	--	--	132.0	43.0	--	--	--	132.0	43.0	--	--	--	132.0	43.0	--	--	--	132.0	43.0
MAXIMUM PRODUCTION EMISSIONS																					
All alternatives with 3,100 wells	0	0.005	0.001	0.000	132.0	43.0	0.001	0.000	0.000	132.0	43.0	0.002	0.000	0.000	132.0	43.0	0.001	0.000	0.000	132.0	43.0
MAXIMUM FIELD EMISSIONS																					
Alternative A and Proposed Action	250	0.229	0.073	0.004	132.2	43.1	0.019	0.005	0.000	132.0	43.0	0.081	0.013	0.001	132.1	43.0	0.037	0.010	0.001	132.0	43.0
Alternative A	150	0.143	0.046	0.002	132.1	43.0	0.012	0.003	0.000	132.0	43.0	0.055	0.008	0.001	132.1	43.0	0.024	0.006	0.000	132.0	43.0
	75	0.073	0.022	0.001	132.1	43.0	0.006	0.002	0.000	132.0	43.0	0.026	0.005	0.000	132.0	43.0	0.011	0.004	0.000	132.0	43.0
Alternative B	250	0.280	0.090	0.004	132.3	43.1	0.023	0.006	0.000	132.0	43.0	0.100	0.016	0.001	132.1	43.0	0.045	0.013	0.001	132.0	43.0
	150	0.174	0.056	0.003	132.2	43.1	0.015	0.004	0.000	132.0	43.0	0.067	0.010	0.001	132.1	43.0	0.029	0.008	0.001	132.0	43.0
	75	0.089	0.027	0.001	132.1	43.0	0.008	0.002	0.000	132.0	43.0	0.032	0.006	0.000	132.0	43.0	0.014	0.004	0.000	132.0	43.0
Alternative C	250	0.227	0.073	0.004	132.2	43.1	0.019	0.005	0.000	132.0	43.0	0.081	0.013	0.001	132.1	43.0	0.036	0.010	0.001	132.0	43.0
	150	0.140	0.045	0.002	132.1	43.0	0.012	0.003	0.000	132.0	43.0	0.054	0.008	0.001	132.1	43.0	0.023	0.006	0.000	132.0	43.0
	75	0.071	0.022	0.001	132.1	43.0	0.006	0.002	0.000	132.0	43.0	0.026	0.005	0.000	132.1	43.0	0.011	0.004	0.000	132.0	43.0
Alternative D	250	Alternative D was not modeled. Results would be between Alternative A and Alternative C.																			
	75																				
Alternative E	250	Alternative E was not modeled. Results would be between Alternative B and Alternative F.																			
	150																				
	75																				
Alternative F	250	0.254	0.079	0.004	132.3	43.1	0.021	0.006	0.000	132.0	43.0	0.090	0.014	0.001	132.1	43.0	0.041	0.011	0.001	132.0	43.0
	150	0.157	0.050	0.002	132.2	43.0	0.014	0.004	0.000	132.0	43.0	0.060	0.009	0.001	132.1	43.0	0.026	0.007	0.001	132.0	43.0
150	75	0.081	0.024	0.001	132.1	43.0	0.007	0.002	0.000	132.0	43.0	0.029	0.005	0.000	132.0	43.0	0.012	0.004	0.000	132.0	43.0
Alternative G	250	Alternative G was not modeled. Results would be between Alternative A and Alternative F.																			
	75																				
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.																			

[1] Ambient Air Quality Standards: 3-hr NAAQS/WAAQS = 1,300 µg/m^3; 24-hr NAAQS/WAAQS = 365 µg/m^3 (NAAQS) and 260 µg/m^3 (WAAQS); Annual NAAQS/WAAQS = 100 µg/m^3 80 (NAAQS) and 60 µg/m^3 (WAAQS).

[2] In µg/m^3.

[3] Total concentration includes direct modeled impact and background concentration; annual background SO_2 concentration = 9 µg/m^3; 8-hr background SO_2 concentration = 43 µg/m^3; 3-hr background SO_2 concentration = 32 µg/m^3; total concentration remains equal to the background conentration of 9 µg/m^3 (now shown) under all alternatives.

[4] No Action Alternative was not modeled; total concentration represents background concentration only.

Table F-11 (continued)

Alternative or Development Phase	WDR	Grand Teton National Park Class I					Teton Wilderness Class I					Yellowstone National Park Class I					Washakie Wilderness Area Class I				
		Direct Modeled Impact[2]			Total Concentration[3]		Direct Modeled Impact[2]			Total Concentration[3]		Direct Modeled Impact[2]			Total Concentration[3]		Direct Modeled Impact[2]			Total Concentration[3]	
		3-hr	24-hr	Annual	3-hr	24-hr	3-hr	24-hr	Annual	3-hr	24-hr	3-hr	24-hr	Annual	3-hr	24-hr	3-hr	24-hr	Annual	3-hr	Annual
No Action[4]	--	--	--	--	132.0	43.0	--	--	--	132.0	43.0	--	--	--	132.0	43.0	--	--	--	132.0	43.0
MAXIMUM PRODUCTION EMISSIONS																					
All alternatives with 3,100 wells	0	0.000	0.000	0.000	132.0	43.0	0.001	0.000	0.000	132.0	43.0	0.000	0.000	0.000	132.0	43.0	0.001	0.000	0.000	132.0	43.0
MAXIMUM FIELD EMISSIONS																					
Alternative A and Proposed Action	250	0.008	0.002	0.000	132.0	43.0	0.007	0.001	0.000	132.0	43.0	0.003	0.001	0.000	132.0	43.0	0.006	0.002	0.000	132.0	43.0
Alternative A	150	0.005	0.001	0.000	132.0	43.0	0.004	0.001	0.000	132.0	43.0	0.002	0.001	0.000	132.0	43.0	0.004	0.001	0.000	132.0	43.0
	75	0.003	0.001	0.000	132.0	43.0	0.002	0.000	0.000	132.0	43.0	0.001	0.000	0.000	132.0	43.0	0.003	0.001	0.000	132.0	43.0
Alternative B	250	0.009	0.003	0.000	132.0	43.0	0.009	0.002	0.000	132.0	43.0	0.004	0.001	0.000	132.0	43.0	0.007	0.002	0.000	132.0	43.0
	150	0.006	0.002	0.000	132.0	43.0	0.005	0.001	0.000	132.0	43.0	0.002	0.001	0.000	132.0	43.0	0.005	0.001	0.000	132.0	43.0
	75	0.003	0.001	0.000	132.0	43.0	0.003	0.000	0.000	132.0	43.0	0.001	0.000	0.000	132.0	43.0	0.003	0.001	0.000	132.0	43.0
Alternative C	250	0.008	0.002	0.000	132.0	43.0	0.007	0.001	0.000	132.0	43.0	0.003	0.001	0.000	132.0	43.0	0.006	0.002	0.000	132.0	43.0
	150	0.005	0.001	0.000	132.0	43.0	0.004	0.001	0.000	132.0	43.0	0.002	0.001	0.000	132.0	43.0	0.004	0.001	0.000	132.0	43.0
	75	0.002	0.001	0.000	132.0	43.0	0.002	0.000	0.000	132.0	43.0	0.001	0.000	0.000	132.0	43.0	0.002	0.001	0.000	132.0	43.0
Alternative D	250																				
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.																			
	75																				
Alternative E	250																				
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.																			
	75																				
Alternative F	250	0.009	0.003	0.000	132.0	43.0	0.008	0.001	0.000	132.0	43.0	0.003	0.001	0.000	132.0	43.0	0.007	0.002	0.000	132.0	43.0
	150	0.005	0.002	0.000	132.0	43.0	0.005	0.001	0.000	132.0	43.0	0.002	0.001	0.000	132.0	43.0	0.004	0.001	0.000	132.0	43.0
	75	0.003	0.001	0.000	132.0	43.0	0.003	0.000	0.000	132.0	43.0	0.001	0.000	0.000	132.0	43.0	0.003	0.001	0.000	132.0	43.0
Alternative G	250																				
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.																			
	75																				
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.																			

[1] Ambient Air Quality Standards: 3-hr NAAQS/WAAQS = 1,300 µg/m^3; 24-hr NAAQS/WAAQS = 365 µg/m^3 (NAAQS) and 260 µg/m^3 (WAAQS); Annual NAAQS/WAAQS = 100 µg/m^3 80 (NAAQS) and 60 µg/m^3 (WAAQS).

[2] In µg/m^3.

[3] Total concentration includes direct modeled impact and background concentration; annual background SO_2 concentration = 9 µg/m^3; 8-hr background SO_2 concentration = 43 µg/m^3; 3-hr background SO_2 concentration = 32 µg/m^3; total concentration remains equal to the background conentration of 9 µg/m^3 (now shown) under all alternatives.

[4] No Action Alternative was not modeled; total concentration represents background concentration only.

Table F-12 Summary of Maximum Modeled PM_{10} Concentrations at PSD Class I and Sensitive PSD Class II Areas from Direct Project Sources for Comparison to Ambient Air Quality Standards[1], Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative or Development Phase	WDR	Bridger Wilderness Class I				Fitzpatrick Wilderness Class I				Popo Agie Wilderness Class II				Wind River Roadless Area Class II			
		Direct Modeled Impact[2]		Total Concentration[3]		Direct Modeled Impact[2]		Total Concentration[3]		Direct Modeled Impact[2]		Total Concentration[3]		Direct Modeled Impact[2]		Total Concentration[3]	
		24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual
No Action[4]	--	--	--	33.0	16.00	--	--	33.0	16.00	--	--	33.0	16.00	--	--	33.0	16.00
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	0.75	0.030	33.7	16.03	0.07	0.003	33.1	16.00	0.15	0.008	33.1	16.01	0.12	0.006	33.1	16.01
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	1.66	0.063	34.7	16.06	0.18	0.006	33.2	16.01	0.26	0.018	33.3	16.02	0.19	0.013	33.2	16.01
Alternative A	150	1.28	0.050	34.3	16.05	0.14	0.005	33.1	16.00	0.21	0.014	33.2	16.01	0.16	0.010	33.2	16.01
	75	1.00	0.039	34.0	16.04	0.10	0.004	33.1	16.00	0.18	0.011	33.2	16.01	0.14	0.008	33.1	16.01
Alternative B	250	1.70	0.068	34.7	16.07	0.20	0.007	33.2	16.01	0.24	0.02	33.2	16.02	0.19	0.014	33.2	16.01
	150	1.31	0.053	34.3	16.05	0.15	0.005	33.1	16.01	0.20	0.015	33.2	16.01	0.16	0.011	33.2	16.01
	75	0.99	0.041	34.0	16.04	0.11	0.004	33.1	16.00	0.17	0.011	33.2	16.01	0.14	0.008	33.1	16.01
Alternative C	250	1.24	0.046	34.2	16.05	0.14	0.005	33.1	16.00	0.17	0.014	33.2	16.01	0.13	0.009	33.1	16.01
	150	0.87	0.033	33.9	16.03	0.10	0.003	33.1	16.00	0.13	0.010	33.1	16.01	0.09	0.007	33.1	16.01
	75	0.59	0.022	33.6	16.02	0.06	0.002	33.1	16.00	0.09	0.007	33.1	16.01	0.07	0.005	33.1	16.00
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	1.65	0.064	34.7	16.06	0.19	0.006	33.2	16.01	0.25	0.018	33.2	16.02	0.19	0.013	33.2	16.01
	150	1.31	0.051	34.3	16.05	0.14	0.005	33.1	16.01	0.21	0.014	33.2	16.01	0.16	0.010	33.2	16.01
	75	1.04	0.041	34.0	16.04	0.11	0.004	33.1	16.00	0.18	0.011	33.2	16.01	0.14	0.008	33.1	16.01
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] Ambient Air Quality Standards: 24-hr NAAQS/WAAQS = 150 µg/m^3; Annual NAAQS/WAAQS = 50 µg/m^3.
[2] In µg/m^3.
[3] Total concentration includes direct modeled impact and background concentration; annual background PM_{10} concentration = 16 µg/m^3; 24-hr background PM_{10} concentration = 33 µg/m^3.
[4] No Action Alternative was not modeled; total concentration represents background concentration only.

Table F-12 (continued)

Alternative or Development Phase	WDR	Grand Teton National Park Class I				Teton Wilderness Class I				Yellowstone National Park Class I				Washakie Wilderness Area Class I			
		Direct Modeled Impact[2]		Total Concentration[3]		Direct Modeled Impact[2]		Total Concentration[3]		Direct Modeled Impact[2]		Total Concentration[3]		Direct Modeled Impact[2]		Total Concentration[3]	
		24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual
No Action[4]	--	--	--	33.0	16.00	--	--	33.0	16.00	--	--	33.0	16.00	--	--	33.0	16.00
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	0.03	0.001	33.0	16.00	0.02	0.001	33.0	16.00	0.01	0.000	33.0	16.00	0.03	0.001	33.0	16.00
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	0.09	0.003	33.1	16.00	0.04	0.002	33.0	16.00	0.04	0.001	33.0	16.00	0.08	0.002	33.1	16.00
Alternative A	150	0.07	0.002	33.1	16.00	0.03	0.001	33.0	16.00	0.03	0.001	33.0	16.00	0.06	0.002	33.1	16.00
	75	0.05	0.001	33.0	16.00	0.03	0.001	33.0	16.00	0.02	0.001	33.0	16.00	0.04	0.001	33.0	16.00
Alternative B	250	0.10	0.003	33.1	16.00	0.05	0.002	33.0	16.00	0.05	0.001	33.0	16.00	0.08	0.002	33.1	16.00
	150	0.08	0.002	33.1	16.00	0.03	0.001	33.0	16.00	0.03	0.001	33.0	16.00	0.06	0.002	33.1	16.00
	75	0.05	0.002	33.1	16.00	0.03	0.001	33.0	16.00	0.02	0.001	33.0	16.00	0.04	0.001	33.0	16.00
Alternative C	250	0.08	0.002	33.1	16.00	0.04	0.001	33.0	16.00	0.04	0.001	33.0	16.00	0.06	0.002	33.1	16.00
	150	0.05	0.002	33.1	16.00	0.02	0.001	33.0	16.00	0.03	0.001	33.0	16.00	0.04	0.001	33.0	16.00
	75	0.03	0.001	33.0	16.00	0.02	0.001	33.0	16.00	0.02	0.000	33.0	16.00	0.03	0.001	33.0	16.00
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	0.10	0.003	33.1	16.00	0.04	0.002	33.0	16.00	0.04	0.001	33.0	16.00	0.08	0.002	33.1	16.00
	150	0.07	0.002	33.1	16.00	0.03	0.001	33.0	16.00	0.03	0.001	33.0	16.00	0.06	0.002	33.1	16.00
	75	0.05	0.002	33.1	16.00	0.03	0.001	33.0	16.00	0.02	0.001	33.0	16.00	0.04	0.001	33.0	16.00
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] Ambient Air Quality Standards: 24-hr NAAQS/WAAQS = 150 µg/m^3; Annual NAAQS/WAAQS = 50 µg/m^3 .
[2] In µg/m^3.
[3] Total concentration includes direct modeled impact and background concentration; annual background PM_{10} concentration = 16 µg/m^3; 24-hr background PM_{10} concentration = 33 µg/m^3.
[4] No Action Alternative was not modeled; total concentration represents background concentration only.

Table F-13 Summary of Maximum Modeled $PM_{2.5}$ Concentrations at PSD Class I and Sensitive PSD Class II Areas from Direct Project Sources for Comparison to Ambient Air Quality Standards[1], Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative or Development Phase	WDR	Bridger Wilderness Class I				Fitzpatrick Wilderness Class I				Popo Agie Wilderness Class II				Wind River Roadless Area Class II			
		Direct Modeled Impact[2]		Total Concentration[3]		Direct Modeled Impact[2]		Total Concentration[3]		Direct Modeled Impact[2]		Total Concentration[3]		Direct Modeled Impact[2]		Total Concentration[3]	
		24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual
No Action[4]	--	--	--	13.0	5.00	--	--	13.0	5.00	--	--	13.0	5.00	--	--	13.0	5.00
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	0.75	0.030	13.7	5.03	0.07	0.003	13.1	5.00	0.15	0.008	13.1	5.01	0.12	0.006	13.1	5.01
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	1.66	0.063	14.7	5.06	0.18	0.006	13.2	5.01	0.26	0.018	13.3	5.02	0.19	0.013	13.2	5.01
Alternative A	150	1.28	0.050	14.3	5.05	0.14	0.005	13.1	5.00	0.21	0.014	13.2	5.01	0.16	0.010	13.2	5.01
	75	1.00	0.039	14.0	5.04	0.10	0.004	13.1	5.00	0.18	0.011	13.2	5.01	0.14	0.008	13.1	5.01
Alternative B	250	1.70	0.068	14.7	5.07	0.20	0.007	13.2	5.01	0.24	0.020	13.2	5.02	0.19	0.014	13.2	5.01
	150	1.31	0.053	14.3	5.05	0.15	0.005	13.1	5.01	0.20	0.015	13.2	5.01	0.16	0.011	13.2	5.01
	75	0.99	0.041	14.0	5.04	0.11	0.004	13.1	5.00	0.17	0.011	13.2	5.01	0.14	0.008	13.1	5.01
Alternative C	250	1.24	0.046	14.2	5.05	0.14	0.005	13.1	5.00	0.17	0.014	13.2	5.01	0.13	0.009	13.1	5.01
	150	0.87	0.033	13.9	5.03	0.10	0.003	13.1	5.00	0.13	0.010	13.1	5.01	0.09	0.007	13.1	5.01
	75	0.59	0.022	13.6	5.02	0.06	0.002	13.1	5.00	0.09	0.007	13.1	5.01	0.07	0.005	13.1	5.00
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	1.65	0.064	14.7	5.06	0.19	0.006	13.2	5.01	0.25	0.018	13.2	5.02	0.19	0.013	13.2	5.01
	150	1.31	0.051	14.3	5.05	0.14	0.005	13.1	5.01	0.21	0.014	13.2	5.01	0.16	0.010	13.2	5.01
	75	1.04	0.041	14.0	5.04	0.11	0.004	13.1	5.00	0.18	0.011	13.2	5.01	0.14	0.008	13.1	5.01
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] Ambient Air Quality Standards: 24-hr NAAQS/WAAQS = 65 µg/m^3; Annual NAAQS/WAAQS = 15 µg/m^3; the WAAQS are not yet enforced in Wyoming per WAQSR Chapter 2, Section 2(b)(v).
[2] In µg/m^3.
[3] Total concentration includes direct modeled impact and background concentration; annual background PM_{10} concentration = 5 µg/m^3; 24-hr background PM_{10} concentration = 13 µg/m^3.
[4] No Action Alternative was not modeled; total concentration represents background concentration only.

Table F-13 (continued)

Alternative or Development Phase	WDR	Grand Teton National Park Class I				Teton Wilderness Class I				Yellowstone National Park Class I				Washakie Wilderness Area Class I			
		Direct Modeled Impact[2]		Total Concentration[3]		Direct Modeled Impact[2]		Total Concentration[3]		Direct Modeled Impact[2]		Total Concentration[3]		Direct Modeled Impact[2]		Total Concentration[3]	
		24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual
No Action[4]	--	--	--	13.0	5.00	--	--	13.0	5.00	--	--	13.0	5.00	--	--	13.0	5.00
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	0.03	0.001	13.0	5.00	0.02	0.001	13.0	5.00	0.01	0.000	13.0	5.00	0.03	0.001	13.0	5.00
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	0.09	0.003	13.1	5.00	0.04	0.002	13.0	5.00	0.04	0.001	13.0	5.00	0.08	0.002	13.1	5.00
Alternative A	150	0.07	0.002	13.1	5.00	0.03	0.001	13.0	5.00	0.03	0.001	13.0	5.00	0.06	0.002	13.1	5.00
	75	0.05	0.001	13.0	5.00	0.03	0.001	13.0	5.00	0.02	0.001	13.0	5.00	0.04	0.001	13.0	5.00
Alternative B	250	0.10	0.003	13.1	5.00	0.05	0.002	13.0	5.00	0.05	0.001	13.0	5.00	0.08	0.002	13.1	5.00
	150	0.08	0.002	13.1	5.00	0.03	0.001	13.0	5.00	0.03	0.001	13.0	5.00	0.06	0.002	13.1	5.00
	75	0.05	0.002	13.1	5.00	0.03	0.001	13.0	5.00	0.02	0.001	13.0	5.00	0.04	0.001	13.0	5.00
Alternative C	250	0.08	0.002	13.1	5.00	0.04	0.001	13.0	5.00	0.04	0.001	13.0	5.00	0.06	0.002	13.1	5.00
	150	0.05	0.002	13.1	5.00	0.02	0.001	13.0	5.00	0.03	0.001	13.0	5.00	0.04	0.001	13.0	5.00
	75	0.03	0.001	13.0	5.00	0.02	0.001	13.0	5.00	0.02	0.000	13.0	5.00	0.03	0.001	13.0	5.00
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	0.10	0.003	13.1	5.00	0.04	0.002	13.0	5.00	0.04	0.001	13.0	5.00	0.08	0.002	13.1	5.00
	150	0.07	0.002	13.1	5.00	0.03	0.001	13.0	5.00	0.03	0.001	13.0	5.00	0.06	0.002	13.1	5.00
	75	0.05	0.002	13.1	5.00	0.03	0.001	13.0	5.00	0.02	0.001	13.0	5.00	0.04	0.001	13.0	5.00
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] Ambient Air Quality Standards: 24-hr NAAQS/WAAQS = 65 µg/m^3; Annual NAAQS/WAAQS = 15 µg/m^3; the WAAQS are not yet enforced in Wyoming per WAQSR Chapter 2, Section 2(b)(v).
[2] In µg/m^3.
[3] Total concentration includes direct modeled impact and background concentration; annual background PM_{10} concentration = 5 µg/m^3; 24-hr background PM_{10} concentration = 13 µg/m^3.
[4] No Action Alternative was not modeled; total concentration represents background concentration only.

Table F-14 Summary of Maximum Modeled Direct NO_2 Concentrations at PSD Class I and Sensitive PSD Class II Areas Compared to PSD Significance Impact Levels (SILs) and Applicable PSD Increments, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005. [1]

		Bridger Wilderness Class I			Fitzpatrick Wilderness Class I			Popo Agie Wilderness Class II			Wind River Roadless Area Class II			Grand Teton National Park Class I			Teton Wilderness Class I			Yellowstone National Park Class I			Washakie Wilderness Area Class I		
		Direct Modeled Impact			Direct Modeled Impact			Direct Modeled Impact			Direct Modeled Impact			Direct Modeled Impact			Direct Modeled Impact			Direct Modeled Impact			Direct Modeled Impact		
Alternative or Development Phase	WDR	Annual	PSD SIL [2]	PSD Increment	Annual	PSD SIL [2]	PSD Increment	Annual	PSD SIL [2]	PSD Increment	Annual	PSD SIL [2]	PSD Increment	Annual	PSD SIL [2]	PSD Increment	Annual	PSD SIL [2]	PSD Increment	Annual	PSD SIL [2]	PSD Increment	Annual	PSD SIL [2]	PSD Increment
No Action[3]	--	--	0.1	2.5	--	0.1	2.5	--	1.0	25	--	1.0	25	--	0.1	2.5	--	0.1	2.5	--	0.1	2.5	--	0.1	2.5
MAXIMUM PRODUCTION EMISSIONS																									
All alternatives with 3,100 wells	0	0.026	0.1	2.5	0.001	0.1	2.5	0.009	1.0	25	0.006	1.0	25	0.000	0.1	2.5	0.000	0.1	2.5	0.000	0.1	2.5	0.000	0.1	2.5
MAXIMUM FIELD EMISSIONS																									
Alternative A and Proposed Action	250	0.132	0.1	2.5	0.006	0.1	2.5	0.044	1.0	25	0.026	1.0	25	0.002	0.1	2.5	0.001	0.1	2.5	0.001	0.1	2.5	0.001	0.1	2.5
Alternative A	150	0.091	0.1	2.5	0.004	0.1	2.5	0.031	1.0	25	0.019	1.0	25	0.001	0.1	2.5	0.001	0.1	2.5	0.000	0.1	2.5	0.001	0.1	2.5
	75	0.057	0.1	2.5	0.003	0.1	2.5	0.021	1.0	25	0.012	1.0	25	0.001	0.1	2.5	0.000	0.1	2.5	0.000	0.1	2.5	0.000	0.1	2.5
Alternative B	250	0.153	0.1	2.5	0.006	0.1	2.5	0.050	1.0	25	0.030	1.0	25	0.002	0.1	2.5	0.001	0.1	2.5	0.001	0.1	2.5	0.001	0.1	2.5
	150	0.103	0.1	2.5	0.004	0.1	2.5	0.035	1.0	25	0.021	1.0	25	0.001	0.1	2.5	0.001	0.1	2.5	0.000	0.1	2.5	0.001	0.1	2.5
	75	0.062	0.1	2.5	0.003	0.1	2.5	0.023	1.0	25	0.013	1.0	25	0.001	0.1	2.5	0.000	0.1	2.5	0.000	0.1	2.5	0.001	0.1	2.5
Alternative C	250	0.121	0.1	2.5	0.005	0.1	2.5	0.041	1.0	25	0.024	1.0	25	0.002	0.1	2.5	0.001	0.1	2.5	0.001	0.1	2.5	0.001	0.1	2.5
	150	0.080	0.1	2.5	0.003	0.1	2.5	0.028	1.0	25	0.016	1.0	25	0.001	0.1	2.5	0.000	0.1	2.5	0.000	0.1	2.5	0.001	0.1	2.5
	75	0.045	0.1	2.5	0.002	0.1	2.5	0.017	1.0	25	0.010	1.0	25	0.001	0.1	2.5	0.000	0.1	2.5	0.000	0.1	2.5	0.000	0.1	2.5
Alternative D	250																								
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.																							
	75																								
Alternative E	250																								
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.																							
	75																								
Alternative F	250	0.141	0.1	2.5	0.006	0.1	2.5	0.046	1.0	25	0.027	1.0	25	0.002	0.1	2.5	0.001	0.1	2.5	0.001	0.1	2.5	0.001	0.1	2.5
	150	0.096	0.1	2.5	0.004	0.1	2.5	0.033	1.0	25	0.019	1.0	25	0.001	0.1	2.5	0.001	0.1	2.5	0.000	0.1	2.5	0.001	0.1	2.5
	75	0.063	0.1	2.5	0.003	0.1	2.5	0.023	1.0	25	0.013	1.0	25	0.001	0.1	2.5	0.000	0.1	2.5	0.000	0.1	2.5	0.001	0.1	2.5
Alternative G	250																								
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.																							
	75																								
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.																							

[1] In µg/m^3.
[2] Proposed Class I significance impact level (SIL) in µg/m^3, *Federal Register* Vol. 61, No. 142, Pg. 38,292, July 23, 1996.
[3] No Action Alternative was not modeled; annual background NO_2 concentration = 3.4 µg/m^3.

Table F-15 Summary of Maximum Modeled Direct SO_2 Concentrations at PSD Class I and Sensitive PSD Class II Areas Compared to PSD Significance Impact Levels (SILs) and Applicable PSD Increments, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005. [1]

Alternative or Development Phase	WDR	Bridger Wilderness Class I									Fitzpatrick Wilderness Class I									Popo Agie Wilderness Class II								
		Direct Modeled Impact			PSD SIL[2]			PSD Increment			Direct Modeled Impact			PSD SIL[2]			PSD Increment			Direct Modeled Impact			PSD SIL[2]			PSD Increment		
		3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual
No Action[3]	--	--	--	--	1.0	0.2	0.1	25	5	2	--	--	--	1.0	0.2	0.1	25	5	2	--	--	--	25.0	5.0	1.0	512	91	20
MAXIMUM PRODUCTION EMISSIONS																												
All alternatives with 3,100 wells	0	0.005	0.001	0.000	1.0	0.2	0.1	25	5	2	0.001	0.000	0.000	1.0	0.2	0.1	25	5	2	0.002	0.000	0.000	25.0	5.0	1.0	512	91	20
MAXIMUM FIELD EMISSIONS																												
Alternative A and Proposed Action	250	0.229	0.073	0.004	1.0	0.2	0.1	25	5	2	0.019	0.005	0.000	1.0	0.2	0.1	25	5	2	0.081	0.013	0.001	25.0	5.0	1.0	512	91	20
Alternative A	150	0.143	0.046	0.002	1.0	0.2	0.1	25	5	2	0.012	0.003	0.000	1.0	0.2	0.1	25	5	2	0.055	0.008	0.001	25.0	5.0	1.0	512	91	20
	75	0.073	0.022	0.001	1.0	0.2	0.1	25	5	2	0.006	0.002	0.000	1.0	0.2	0.1	25	5	2	0.026	0.005	0.000	25.0	5.0	1.0	512	91	20
Alternative B	250	0.280	0.090	0.004	1.0	0.2	0.1	25	5	2	0.023	0.006	0.000	1.0	0.2	0.1	25	5	2	0.100	0.016	0.001	25.0	5.0	1.0	512	91	20
	150	0.174	0.056	0.003	1.0	0.2	0.1	25	5	2	0.015	0.004	0.000	1.0	0.2	0.1	25	5	2	0.067	0.010	0.001	25.0	5.0	1.0	512	91	20
	75	0.089	0.027	0.001	1.0	0.2	0.1	25	5	2	0.008	0.002	0.000	1.0	0.2	0.1	25	5	2	0.032	0.006	0.000	25.0	5.0	1.0	512	91	20
Alternative C	250	0.227	0.073	0.004	1.0	0.2	0.1	25	5	2	0.019	0.005	0.000	1.0	0.2	0.1	25	5	2	0.081	0.013	0.001	25.0	5.0	1.0	512	91	20
	150	0.140	0.045	0.002	1.0	0.2	0.1	25	5	2	0.012	0.003	0.000	1.0	0.2	0.1	25	5	2	0.054	0.008	0.001	25.0	5.0	1.0	512	91	20
	75	0.071	0.022	0.001	1.0	0.2	0.1	25	5	2	0.006	0.002	0.000	1.0	0.2	0.1	25	5	2	0.026	0.005	0.000	25.0	5.0	1.0	512	91	20
Alternative D	250	Alternative D was not modeled. Results would be between Alternative A and Alternative C.																										
	75																											
Alternative E	250	Alternative E was not modeled. Results would be between Alternative B and Alternative F.																										
	150																											
	75																											
Alternative F	250	0.254	0.079	0.004	1.0	0.2	0.1	25	5	2	0.021	0.006	0.000	1.0	0.2	0.1	25	5	2	0.090	0.014	0.001	25.0	5.0	1.0	512	91	20
150	150	0.157	0.050	0.002	1.0	0.2	0.1	25	5	2	0.014	0.004	0.000	1.0	0.2	0.1	25	5	2	0.060	0.009	0.001	25.0	5.0	1.0	512	91	20
	75	0.081	0.024	0.001	1.0	0.2	0.1	25	5	2	0.007	0.002	0.000	1.0	0.2	0.1	25	5	2	0.029	0.005	0.000	25.0	5.0	1.0	512	91	20
Alternative G	250	Alternative G was not modeled. Results would be between Alternative A and Alternative F.																										
	75																											
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.																										

[1] In µg/m^3.
[2] Proposed Class I significance impact level (SIL) in µg/m^3, *Federal Register* Vol. 61, No. 142, Pg. 38,292, July 23, 1996.
[3] No Action Alternative was not modeled; annual background SO_2 concentration = 9 µg/m^3; 8-hr background SO_2 concentration = 43 µg/m^3; 3-hr background SO_2 concentration = 132 µg/m^3.

Table F-15 (continued)

Alternative or Development Phase	WDR	Wind River Roadless Area Class II									Grand Teton National Park Class I									Teton Wilderness Class I								
		Direct Modeled Impact			PSD SIL[2]			PSD Increment			Direct Modeled Impact			PSD SIL[2]			PSD Increment			Direct Modeled Impact			PSD SIL[2]			PSD Increment		
		3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual
No Action[3]	--	--	--	--	25.0	5.0	1.0	512	91	20	--	--	--	1.0	0.2	0.1	25	5	2	--	--	--	1.0	0.2	0.1	25	5	2
MAXIMUM PRODUCTION EMISSIONS																												
All alternatives with 3,100 wells	0	0.001	0.000	0.000	25.0	5.0	1.0	512	91	20	0.000	0.000	0.000	1.0	0.2	0.1	25	5	2	0.001	0.000	0.000	1.0	0.2	0.1	25	5	2
MAXIMUM FIELD EMISSIONS																												
Alternative A and Proposed Action	250	0.037	0.010	0.001	25.0	5.0	1.0	512	91	20	0.008	0.002	0.000	1.0	0.2	0.1	25	5	2	0.007	0.001	0.000	1.0	0.2	0.1	25	5	2
Alternative A	150	0.024	0.006	0.000	25.0	5.0	1.0	512	91	20	0.005	0.001	0.000	1.0	0.2	0.1	25	5	2	0.004	0.001	0.000	1.0	0.2	0.1	25	5	2
	75	0.011	0.004	0.000	25.0	5.0	1.0	512	91	20	0.003	0.001	0.000	1.0	0.2	0.1	25	5	2	0.002	0.000	0.000	1.0	0.2	0.1	25	5	2
Alternative B	250	0.045	0.013	0.001	25.0	5.0	1.0	512	91	20	0.009	0.003	0.000	1.0	0.2	0.1	25	5	2	0.009	0.002	0.000	1.0	0.2	0.1	25	5	2
	150	0.029	0.008	0.001	25.0	5.0	1.0	512	91	20	0.006	0.002	0.000	1.0	0.2	0.1	25	5	2	0.005	0.001	0.000	1.0	0.2	0.1	25	5	2
	75	0.014	0.004	0.000	25.0	5.0	1.0	512	91	20	0.003	0.001	0.000	1.0	0.2	0.1	25	5	2	0.003	0.000	0.000	1.0	0.2	0.1	25	5	2
Alternative C	250	0.036	0.010	0.001	25.0	5.0	1.0	512	91	20	0.008	0.002	0.000	1.0	0.2	0.1	25	5	2	0.007	0.001	0.000	1.0	0.2	0.1	25	5	2
	150	0.023	0.006	0.000	25.0	5.0	1.0	512	91	20	0.005	0.001	0.000	1.0	0.2	0.1	25	5	2	0.004	0.001	0.000	1.0	0.2	0.1	25	5	2
	75	0.011	0.004	0.000	25.0	5.0	1.0	512	91	20	0.002	0.001	0.000	1.0	0.2	0.1	25	5	2	0.002	0.000	0.000	1.0	0.2	0.1	25	5	2
Alternative D	250	Alternative D was not modeled. Results would be between Alternative A and Alternative C.																										
	75																											
Alternative E	250	Alternative E was not modeled. Results would be between Alternative B and Alternative F.																										
	150																											
	75																											
Alternative F	250	0.041	0.011	0.001	25.0	5.0	1.0	512	91	20	0.009	0.003	0.000	1.0	0.2	0.1	25	5	2	0.008	0.001	0.000	1.0	0.2	0.1	25	5	2
	150	0.026	0.007	0.001	25.0	5.0	1.0	512	91	20	0.005	0.002	0.000	1.0	0.2	0.1	25	5	2	0.005	0.001	0.000	1.0	0.2	0.1	25	5	2
150	75	0.012	0.004	0.000	25.0	5.0	1.0	512	91	20	0.003	0.001	0.000	1.0	0.2	0.1	25	5	2	0.003	0.000	0.000	1.0	0.2	0.1	25	5	2
Alternative G	250	Alternative G was not modeled. Results would be between Alternative A and Alternative F.																										
	75																											
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.																										

[1] In µg/m^3.
[2] Proposed Class I significance impact level (SIL) in µg/m^3, *Federal Register* Vol. 61, No. 142, Pg. 38,292, July 23, 1996.
[3] No Action Alternative was not modeled; annual background SO_2 concentration = 9 µg/m^3; 8-hr background SO_2 concentration = 43 µg/m^3; 3-hr background SO_2 concentration = 132 µg/m^3.

Table F-15 (continued)

Alternative or Development Phase	WDR	Yellowstone National Park Class I									Washakie Wilderness Area Class I								
		Direct Modeled Impact			PSD SIL[2]			PSD Increment			Direct Modeled Impact			PSD SIL[2]			PSD Increment		
		3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual
No Action[3]	--	--	--	--	1.0	0.2	0.1	25	5	2	--	--	--	1.0	0.2	0.1	25	5	2
MAXIMUM PRODUCTION EMISSIONS																			
All alternatives with 3,100 wells	0	0.000	0.000	0.000	1.0	0.2	0.1	25	5	2	0.001	0.000	0.000	1.0	0.2	0.1	25	5	2
MAXIMUM FIELD EMISSIONS																			
Alternative A and Proposed Action	250	0.003	0.001	0.000	1.0	0.2	0.1	25	5	2	0.006	0.002	0.000	1.0	0.2	0.1	25	5	2
Alternative A	150	0.002	0.001	0.000	1.0	0.2	0.1	25	5	2	0.004	0.001	0.000	1.0	0.2	0.1	25	5	2
	75	0.001	0.000	0.000	1.0	0.2	0.1	25	5	2	0.003	0.001	0.000	1.0	0.2	0.1	25	5	2
Alternative B	250	0.004	0.001	0.000	1.0	0.2	0.1	25	5	2	0.007	0.002	0.000	1.0	0.2	0.1	25	5	2
	150	0.002	0.001	0.000	1.0	0.2	0.1	25	5	2	0.005	0.001	0.000	1.0	0.2	0.1	25	5	2
	75	0.001	0.000	0.000	1.0	0.2	0.1	25	5	2	0.003	0.001	0.000	1.0	0.2	0.1	25	5	2
Alternative C	250	0.003	0.001	0.000	1.0	0.2	0.1	25	5	2	0.006	0.002	0.000	1.0	0.2	0.1	25	5	2
	150	0.002	0.001	0.000	1.0	0.2	0.1	25	5	2	0.004	0.001	0.000	1.0	0.2	0.1	25	5	2
	75	0.001	0.000	0.000	1.0	0.2	0.1	25	5	2	0.002	0.001	0.000	1.0	0.2	0.1	25	5	2
Alternative D	250	Alternative D was not modeled. Results would be between Alternative A and Alternative C.																	
	75																		
Alternative E	250	Alternative E was not modeled. Results would be between Alternative B and Alternative F.																	
	150																		
	75																		
Alternative F	250	0.003	0.001	0.000	1.0	0.2	0.1	25	5	2	0.007	0.002	0.000	1.0	0.2	0.1	25	5	2
	150	0.002	0.001	0.000	1.0	0.2	0.1	25	5	2	0.004	0.001	0.000	1.0	0.2	0.1	25	5	2
	75	0.001	0.000	0.000	1.0	0.2	0.1	25	5	2	0.003	0.001	0.000	1.0	0.2	0.1	25	5	2
Alternative G	250	Alternative G was not modeled. Results would be between Alternative A and Alternative F.																	
	75																		
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.																	

[1] In µg/m^3.
[2] Proposed Class I significance impact level (SIL) in µg/m^3, *Federal Register* Vol. 61, No. 142, Pg. 38,292, July 23, 1996.
[3] No Action Alternative was not modeled; annual background SO_2 concentration = 9 µg/m^3; 8-hr background SO_2 concentration = 43 µg/m^3; 3-hr background SO_2 concentration = 132 µg/m^3.

Table F-16 Summary of Maximum Modeled Direct PM_{10} Concentrations at PSD Class I and Sensitive PSD Class II Areas Compared to PSD Significance Impact Levels (SILs) and Applicable PSD Increments, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.[1]

Alternative or Development Phase	WDR	Bridger Wilderness Class I						Fitzpatrick Wilderness Class I						Popo Agie Wilderness Class II						Wind River Roadless Area Class II					
		Direct Modeled Impact		PSD SIL[2]		PSD Increment		Direct Modeled Impact		PSD SIL[2]		PSD Increment		Direct Modeled Impact		PSD SIL[2]		PSD Increment		Direct Modeled Impact		PSD SIL[2]		PSD Increment	
		3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual
No Action[3]	--	--	--	0.3	0.2	8	4	--	--	0.3	0.2	8	4	--	--	5.0	1.0	30	17	--	--	5.0	1.0	30	17
MAXIMUM PRODUCTION EMISSIONS																									
All alternatives with 3,100 wells	0	0.75	0.030	0.3	0.2	8	4	0.07	0.003	0.3	0.2	8	4	0.15	0.008	5.0	1.0	30	17	0.12	0.006	5.0	1.0	30	17
MAXIMUM FIELD EMISSIONS																									
Alternative A and Proposed Action	250	1.66	0.063	0.3	0.2	8	4	0.18	0.006	0.3	0.2	8	4	0.26	0.018	5.0	1.0	30	17	0.19	0.013	5.0	1.0	30	17
Alternative A	150	1.28	0.050	0.3	0.2	8	4	0.14	0.005	0.3	0.2	8	4	0.21	0.014	5.0	1.0	30	17	0.16	0.010	5.0	1.0	30	17
	75	1.00	0.039	0.3	0.2	8	4	0.10	0.004	0.3	0.2	8	4	0.18	0.011	5.0	1.0	30	17	0.14	0.008	5.0	1.0	30	17
Alternative B	250	1.70	0.068	0.3	0.2	8	4	0.20	0.007	0.3	0.2	8	4	0.24	0.02	5.0	1.0	30	17	0.19	0.014	5.0	1.0	30	17
	150	1.31	0.053	0.3	0.2	8	4	0.15	0.005	0.3	0.2	8	4	0.20	0.015	5.0	1.0	30	17	0.16	0.011	5.0	1.0	30	17
	75	0.99	0.041	0.3	0.2	8	4	0.11	0.004	0.3	0.2	8	4	0.17	0.011	5.0	1.0	30	17	0.14	0.008	5.0	1.0	30	17
Alternative C	250	1.24	0.046	0.3	0.2	8	4	0.14	0.005	0.3	0.2	8	4	0.17	0.014	5.0	1.0	30	17	0.13	0.009	5.0	1.0	30	17
	150	0.87	0.033	0.3	0.2	8	4	0.10	0.003	0.3	0.2	8	4	0.13	0.010	5.0	1.0	30	17	0.09	0.007	5.0	1.0	30	17
	75	0.59	0.022	0.3	0.2	8	4	0.06	0.002	0.3	0.2	8	4	0.09	0.007	5.0	1.0	30	17	0.07	0.005	5.0	1.0	30	17
Alternative D	250																								
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.																							
	75																								
Alternative E	250																								
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.																							
	75																								
Alternative F	250	1.65	0.064	0.3	0.2	8	4	0.19	0.006	0.3	0.2	8	4	0.25	0.018	5.0	1.0	30	17	0.19	0.013	5.0	1.0	30	17
	150	1.31	0.051	0.3	0.2	8	4	0.14	0.005	0.3	0.2	8	4	0.21	0.014	5.0	1.0	30	17	0.16	0.010	5.0	1.0	30	17
	75	1.04	0.041	0.3	0.2	8	4	0.11	0.004	0.3	0.2	8	4	0.18	0.011	5.0	1.0	30	17	0.14	0.008	5.0	1.0	30	17
Alternative G	250																								
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.																							
	75																								
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.																							

[1] In µg/m^3.
[2] Proposed Class I significance impact level (SIL) in µg/m^3, *Federal Register* Vol. 61, No. 142, Pg. 38,292, July 23, 1996.
[3] No Action Alternative was not modeled; annual background PM_{10} concentration = 16 µg/m^3; 24-hr background PM_{10} concentration = 33 µg/m^3.

Table F-16 (continued)

Alternative or Development Phase	WDR	Grand Teton National Park Class I						Teton Wilderness Class I						Yellowstone National Park Class I						Washakie Wilderness Area Class I					
		Direct Modeled Impact		PSD SIL[2]		PSD Increment		Direct Modeled Impact		PSD SIL[2]		PSD Increment		Direct Modeled Impact		PSD SIL[2]		PSD Increment		Direct Modeled Impact		PSD SIL[2]		PSD Increment	
		3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual
No Action[3]	--	--	--	0.3	0.2	8	4	--	--	0.3	0.2	8	4	--	--	0.3	0.2	8	4	--	--	0.3	0.2	8	4
MAXIMUM PRODUCTION EMISSIONS																									
All alternatives with 3,100 wells	0	0.03	0.001	0.3	0.2	8	4	0.02	0.001	0.3	0.2	8	4	0.01	0.000	0.3	0.2	8	4	0.03	0.001	0.3	0.2	8	4
MAXIMUM FIELD EMISSIONS																									
Alternative A and Proposed Action	250	0.09	0.003	0.3	0.2	8	4	0.04	0.002	0.3	0.2	8	4	0.04	0.001	0.3	0.2	8	4	0.08	0.002	0.3	0.2	8	4
Alternative A	150	0.07	0.002	0.3	0.2	8	4	0.03	0.001	0.3	0.2	8	4	0.03	0.001	0.3	0.2	8	4	0.06	0.002	0.3	0.2	8	4
	75	0.05	0.001	0.3	0.2	8	4	0.03	0.001	0.3	0.2	8	4	0.02	0.001	0.3	0.2	8	4	0.04	0.001	0.3	0.2	8	4
Alternative B	250	0.10	0.003	0.3	0.2	8	4	0.05	0.002	0.3	0.2	8	4	0.05	0.001	0.3	0.2	8	4	0.08	0.002	0.3	0.2	8	4
	150	0.08	0.002	0.3	0.2	8	4	0.03	0.001	0.3	0.2	8	4	0.03	0.001	0.3	0.2	8	4	0.06	0.002	0.3	0.2	8	4
	75	0.05	0.002	0.3	0.2	8	4	0.03	0.001	0.3	0.2	8	4	0.02	0.001	0.3	0.2	8	4	0.04	0.001	0.3	0.2	8	4
Alternative C	250	0.08	0.002	0.3	0.2	8	4	0.04	0.001	0.3	0.2	8	4	0.04	0.001	0.3	0.2	8	4	0.06	0.002	0.3	0.2	8	4
	150	0.05	0.002	0.3	0.2	8	4	0.02	0.001	0.3	0.2	8	4	0.03	0.001	0.3	0.2	8	4	0.04	0.001	0.3	0.2	8	4
	75	0.03	0.001	0.3	0.2	8	4	0.02	0.001	0.3	0.2	8	4	0.02	0.000	0.3	0.2	8	4	0.03	0.001	0.3	0.2	8	4
Alternative D	250																								
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.																							
	75																								
Alternative E	250																								
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.																							
	75																								
Alternative F	250	0.10	0.003	0.3	0.2	8	4	0.04	0.002	0.3	0.2	8	4	0.04	0.001	0.3	0.2	8	4	0.08	0.002	0.3	0.2	8	4
	150	0.07	0.002	0.3	0.2	8	4	0.03	0.001	0.3	0.2	8	4	0.03	0.001	0.3	0.2	8	4	0.06	0.002	0.3	0.2	8	4
	75	0.05	0.002	0.3	0.2	8	4	0.03	0.001	0.3	0.2	8	4	0.02	0.001	0.3	0.2	8	4	0.04	0.001	0.3	0.2	8	4
Alternative G	250																								
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.																							
	75																								
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.																							

[1] In µg/m^3.
[2] Proposed Class I significance impact level (SIL) in µg/m^3, *Federal Register* Vol. 61, No. 142, Pg. 38,292, July 23, 1996.
[3] No Action Alternative was not modeled; annual background PM_{10} concentration = 16 µg/m^3; 24-hr background PM_{10} concentration = 33 µg/m^3.

Table F-17 Summary of Maximum Modeled Visibility Impacts at PSD Class I and Sensitive PSD Class II Areas from Direct Project Sources Using FLAG Background Data, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative or Development Phase	WDR	Bridger Wilderness Class I		Fitzpatrick Wilderness Class I		Popo Agie Wilderness Class II		Wind River Roadless Area Class II		Grand Teton National Park Class I		Teton Wilderness Class I		Yellowstone National Park Class I		Washakie Wilderness Area Class I	
		Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv
No Action[2]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	1.02	1	0.13	0	0.21	0	0.18	0	0.08	0	0.03	0	0.04	0	0.06	0
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	3.16	9	0.56	0	0.54	0	0.45	0	0.32	0	0.14	0	0.16	0	0.24	0
Alternative A	150	2.36	5	0.39	0	0.39	0	0.32	0	0.23	0	0.10	0	0.11	0	0.17	0
	75	1.69	2	0.26	0	0.30	0	0.23	0	0.15	0	0.06	0	0.07	0	0.11	0
Alternative B	250	3.32	11	0.65	0	0.62	0	0.52	0	0.36	0	0.16	0	0.18	0	0.27	0
	150	2.47	6	0.44	0	0.43	0	0.36	0	0.26	0	0.11	0	0.12	0	0.19	0
	75	1.71	2	0.28	0	0.29	0	0.24	0	0.17	0	0.07	0	0.08	0	0.12	0
Alternative C	250	2.75	8	0.49	0	0.47	0	0.39	0	0.29	0	0.13	0	0.14	0	0.22	0
	150	1.92	4	0.34	0	0.32	0	0.25	0	0.20	0	0.09	0	0.10	0	0.15	0
	75	1.22	2	0.21	0	0.20	0	0.15	0	0.12	0	0.05	0	0.06	0	0.09	0
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	3.25	10	0.60	0	0.58	0	0.48	0	0.34	0	0.15	0	0.17	0	0.25	0
	150	2.44	5	0.42	0	0.41	0	0.35	0	0.24	0	0.10	0	0.12	0	0.18	0
	75	1.80	2	0.29	0	0.31	0	0.25	0	0.17	0	0.07	0	0.08	0	0.12	0
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] In deciviews (dv).
[2] No Action Alternative was not modeled.

Table F-18 Summary of Maximum Modeled Visibility Impacts at PSD Class I and Sensitive PSD Class II Areas from Direct Project Sources Using IMPROVE Background Data, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative or Development Phase	WDR	Bridger Wilderness Class I		Fitzpatrick Wilderness Class I		Popo Agie Wilderness Class II		Wind River Roadless Area Class II		Grand Teton National Park Class I		Teton Wilderness Class I		Yellowstone National Park Class I		Washakie Wilderness Area Class I	
		Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv
No Action[2]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	1.14	1	0.15	0	0.24	0	0.20	0	0.08	0	0.03	0	0.04	0	0.06	0
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	3.48	10	0.64	0	0.62	0	0.52	0	0.33	0	0.14	0	0.16	0	0.24	0
Alternative A	150	2.61	7	0.45	0	0.44	0	0.37	0	0.23	0	0.10	0	0.11	0	0.17	0
	75	1.87	3	0.30	0	0.34	0	0.26	0	0.16	0	0.07	0	0.08	0	0.11	0
Alternative B	250	3.74	11	0.75	0	0.71	0	0.60	0	0.37	0	0.16	0	0.18	0	0.27	0
	150	2.75	8	0.51	0	0.50	0	0.42	0	0.26	0	0.11	0	0.13	0	0.19	0
	75	1.90	4	0.32	0	0.34	0	0.28	0	0.17	0	0.07	0	0.08	0	0.12	0
Alternative C	250	3.04	8	0.57	0	0.54	0	0.45	0	0.29	0	0.13	0	0.15	0	0.22	0
	150	2.13	4	0.39	0	0.37	0	0.29	0	0.20	0	0.09	0	0.10	0	0.15	0
	75	1.36	2	0.24	0	0.23	0	0.18	0	0.12	0	0.05	0	0.06	0	0.09	0
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	3.57	10	0.69	0	0.66	0	0.56	0	0.34	0	0.15	0	0.17	0	0.25	0
	150	2.70	8	0.49	0	0.47	0	0.40	0	0.25	0	0.11	0	0.12	0	0.18	0
	75	2.00	4	0.34	0	0.34	0	0.28	0	0.17	0	0.07	0	0.08	0	0.12	0
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] In deciviews (dv).
[2] No Action Alternative was not modeled.

Table F-19 Summary of Maximum Modeled Change in ANC at Acid-Sensitive Lakes from Direct Project Sources, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

		Black Joe Lake - Bridger Wilderness Class I		Deep Lake - Bridger Wilderness Class I		Hobbs Lake - Bridger Wilderness Class I		Lazy Boy Lake - Bridger Wilderness Class I		Upper Frozen Lake - Bridger Wilderness Class I		Lower Saddlebag - Popo Agie Wilderness Class II		Ross Lake - Fitzpatrick Wilderness Class I	
Alternative or Development Phase	WDR	ANC Change[1]	Percent ANC Change	ANC Change[1]	Percent ANC Change	ANC Change[1]	Percent ANC Change	ANC Change[1]	Percent ANC Change	ANC Change[1]	Percent ANC Change	ANC Change[1]	Percent ANC Change	ANC Change[1]	Percent ANC Change
Level of Acceptable Change	--	6.70	--	5.99	--	6.99	--	1.00	--	1.00	--	5.55	--	5.35	--
No Action[2]	--	67.0	--	59.9	--	69.9	--	18.8	--	5.0	--	55.5	--	53.5	--
MAXIMUM PRODUCTION EMISSIONS															
All alternatives with 3,100 wells	0	0.02	0.033	0.02	0.041	0.00	0.006	0.00	0.008	0.03	0.567	0.03	0.046	0.00	0.003
MAXIMUM FIELD EMISSIONS															
Alternative A and Proposed Action	250	0.10	0.155	0.11	0.190	0.02	0.030	0.01	0.038	0.14	2.808	0.13	0.231	0.01	0.013
Alternative A	150	0.07	0.109	0.08	0.133	0.01	0.021	0.01	0.027	0.10	1.969	0.09	0.161	0.01	0.009
	75	0.05	0.072	0.05	0.087	0.01	0.013	0.00	0.017	0.06	1.269	0.06	0.107	0.00	0.006
Alternative B	250	0.12	0.177	0.13	0.217	0.02	0.035	0.01	0.043	0.16	3.221	0.15	0.263	0.01	0.015
	150	0.08	0.122	0.09	0.150	0.02	0.023	0.01	0.030	0.11	2.219	0.10	0.181	0.01	0.010
	75	0.05	0.079	0.06	0.095	0.01	0.014	0.00	0.019	0.07	1.386	0.06	0.117	0.00	0.007
Alternative C	250	0.10	0.142	0.10	0.173	0.02	0.029	0.01	0.037	0.13	2.581	0.12	0.216	0.01	0.013
	150	0.06	0.096	0.07	0.117	0.01	0.019	0.00	0.025	0.09	1.741	0.08	0.146	0.00	0.009
	75	0.04	0.059	0.04	0.071	0.01	0.012	0.00	0.016	0.05	1.041	0.05	0.091	0.00	0.005
Alternative D	250														
	150					Alternative D was not modeled. Results would be between Alternative A and Alternative C.									
	75														
Alternative E	250														
	150					Alternative E was not modeled. Results would be between Alternative B and Alternative F.									
	75														
Alternative F	250	0.109	0.163	0.120	0.200	0.023	0.033	0.008	0.041	0.148	2.959	0.135	0.243	0.008	0.014
	150	0.076	0.113	0.082	0.138	0.015	0.022	0.005	0.028	0.102	2.047	0.093	0.168	0.005	0.010
	75	0.053	0.079	0.057	0.095	0.010	0.015	0.004	0.019	0.070	1.407	0.065	0.117	0.004	0.007
Alternative G	250														
	150					Alternative G was not modeled. Results would be between Alternative A and Alternative F.									
	75														
Preferred Alternative	250					Preferred Alternative was not modeled. Results would be similar to Alternative G.									

[4] In µeq/L.
[2] No Action Alternative was not modeled; ANC represents background only.

Table F-20 Summary of Maximum Modeled Sulfur (S) Deposition Impacts at PSD Class I and Sensitive Class II Areas from Direct Project Sources, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative or Development Phase	WDR	Bridger Wilderness Class I[1]	Fitzpatrick Wilderness Class I[1]	Popo Agie Wilderness Class II[1]	Wind River Roadless Area Class II[1]	Grand Teton National Park Class I[1]	Teton Wilderness Class I[1]	Yellowstone National Park Class I[1]	Washakie Wilderness Area Class I[1]
No Action[2]	--	--	--	--	--	--	--	--	--
MAXIMUM PRODUCTION EMISSIONS									
All alternatives with 3,100 wells	0	0.0000316	0.0000036	0.0000184	0.0000114	0.0000015	0.0000008	0.0000006	0.0000010
MAXIMUM FIELD EMISSIONS									
Alternative A and Proposed Action	250	0.0014419	0.0001484	0.0007323	0.0004267	0.0000656	0.0000367	0.0000241	0.0000425
Alternative A	150	0.0009009	0.0000920	0.0004551	0.0002642	0.0000398	0.0000223	0.0000147	0.0000258
		0.0005122	0.0000452	0.0002438	0.0001285	0.0000203	0.0000112	0.0000074	0.0000128
Alternative B	250	0.0017643	0.0001814	0.0008954	0.0005214	0.0000802	0.0000449	0.0000295	0.0000520
		0.0011000	0.0001122	0.0005549	0.0003218	0.0000486	0.0000272	0.0000180	0.0000315
		0.0006225	0.0000547	0.0002954	0.0001552	0.0000246	0.0000135	0.0000090	0.0000155
Alternative C	250	0.0014232	0.0001462	0.0007216	0.0004199	0.0000647	0.0000362	0.0000238	0.0000419
		0.0008828	0.0000899	0.0004444	0.0002574	0.0000389	0.0000218	0.0000144	0.0000252
	75	0.0004942	0.0000431	0.0002331	0.0001217	0.0000194	0.0000107	0.0000071	0.0000122
Alternative D	250								
	150								
	75	Alternative D was not modeled. Results would be between Alternative A and Alternative C.							
Alternative E	250								
	150								
	75	Alternative E was not modeled. Results would be between Alternative B and Alternative F.							
Alternative F	250	0.0015994	0.0001645	0.0008114	0.0004722	0.0000728	0.0000407	0.0000267	0.0000471
		0.0010003	0.0001020	0.0005045	0.0002925	0.0000442	0.0000247	0.0000163	0.0000286
	75	0.0005668	0.0000500	0.0002693	0.0001416	0.0000225	0.0000124	0.0000082	0.0000142
Alternative G	250								
	150								
	75	Alternative G was not modeled. Results would be between Alternative A and Alternative F.							
Preferred Alternative	250								
	150	Preferred Alternative was not modeled. Results would be similar to Alternative G.							
	75								

[1] In kg/ha-yr.

[2] No Action Alternative was not modeled; sulfur deposition analysis threshold (DAT) for direct Project impacts = 0.005 kg/ha-yr.

Table F-21 Summary of Maximum Modeled Nitrogen (N) Deposition Impacts at PSD Class I and Sensitive Class II Areas from Direct Project Sources, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative or Development Phase	WDR	Bridger Wilderness Class I[1]	Fitzpatrick Wilderness Class I[1]	Popo Agie Wilderness Class II[1]	Wind River Roadless Area Class II[1]	Grand Teton National Park Class I[1]	Teton Wilderness Class I[1]	Yellowstone National Park Class I[1]	Washakie Wilderness Area Class I[1]
No Action[2]	--	--	--	--	--	--	--	--	--
MAXIMUM PRODUCTION EMISSIONS									
All alternatives with 3,100 wells	0	0.00669	0.00057	0.00344	0.00212	0.00023	0.00011	0.00008	0.00014
MAXIMUM FIELD EMISSIONS									
Alternative A and Proposed Action	250	0.03487	0.00266	0.01654	0.00988	0.00116	0.00056	0.00041	0.00072
Alternative A	150	0.02440	0.00187	0.01164	0.00696	0.00081	0.00039	0.00028	0.00050
		0.01653	0.00120	0.00771	0.00448	0.00052	0.00025	0.00018	0.00032
Alternative B	250	0.04017	0.00300	0.01886	0.01128	0.00131	0.00063	0.00046	0.00080
		0.02771	0.00208	0.01306	0.00781	0.00090	0.00043	0.00032	0.00055
		0.01837	0.00130	0.00844	0.00486	0.00056	0.00027	0.00020	0.00035
Alternative C	250	0.03233	0.00248	0.01527	0.00906	0.00110	0.00053	0.00038	0.00068
		0.02186	0.00170	0.01039	0.00614	0.00074	0.00036	0.00026	0.00047
		0.01399	0.00103	0.00650	0.00366	0.00046	0.00022	0.00016	0.00029
Alternative D	250								
	150			Alternative D was not modeled. Results would be between Alternative A and Alternative C.					
	75								
Alternative E	250								
	150			Alternative E was not modeled. Results would be between Alternative B and Alternative F.					
75	75								
Alternative F	250	0.03644	0.00282	0.01734	0.01037	0.00123	0.00059	0.00043	0.00076
150		0.02595	0.00198	0.01227	0.00731	0.00085	0.00041	0.00030	0.00053
75		0.01839	0.00132	0.00851	0.00495	0.00057	0.00027	0.00020	0.00035
Alternative G	250								
150	150			Alternative G was not modeled. Results would be between Alternative A and Alternative F.					
75	75								
Preferred Alternative	250			Preferred Alternative was not modeled. Results would be similar to Alternative G.					

[1] In kg/ha-yr.
[2] No Action Alternative was not modeled; nitrogen deposition analysis threshold (DAT) for direct Project impacts = 0.005 kg/ha-yr.

150

75

Table F-22 Summary of Maximum Modeled Visibility Impacts at Wyoming Regional Communities from Direct Project Sources Using FLAG Background Data, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative or Development Phase	WDR	Big Piney		Big Sandy		Boulder		Bronx		Cora		Daniel		Farson		LaBarge		Merna		Pinedale	
		Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv
No Action[2]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MAXIMUM PRODUCTION EMISSIONS																					
All alternatives with 3,100 wells	0	0.57	0	0.76	0	0.49	0	0.31	0	0.60	0	0.49	0	0.47	0	0.26	0	0.19	0	0.93	0
MAXIMUM FIELD EMISSIONS																					
Alternative A and Proposed Action	250	1.75	2	2.77	19	2.09	9	1.48	1	2.81	1	2.24	1	2.04	5	1.15	2	0.68	0	3.78	2
Alternative A	150	1.28	1	2.04	12	1.51	3	1.07	1	2.06	1	1.63	1	1.44	3	0.81	0	0.50	0	2.84	1
	75	0.89	0	1.47	2	1.00	1	0.71	0	1.37	1	1.08	1	0.98	0	0.52	0	0.33	0	1.92	1
Alternative B	250	1.87	5	3.13	24	2.35	11	1.66	1	3.19	1	2.55	1	2.29	6	1.29	2	0.78	0	4.32	3
	150	1.35	2	2.29	15	1.67	5	1.17	1	2.29	1	1.81	1	1.59	4	0.90	0	0.56	0	3.18	2
	75	0.90	0	1.61	3	1.08	2	0.73	0	1.44	1	1.15	1	1.05	1	0.57	0	0.36	0	2.09	1
Alternative C	250	1.48	2	2.50	14	1.92	6	1.32	1	2.54	1	2.00	1	1.88	5	1.10	2	0.61	0	3.39	2
	150	1.00	1	1.76	6	1.33	3	0.90	0	1.77	1	1.38	1	1.27	3	0.75	0	0.42	0	2.41	1
	75	0.60	0	1.17	1	0.81	0	0.54	0	1.05	1	0.82	0	0.80	0	0.47	0	0.26	0	1.45	1
Alternative D	250																				
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.																			
	75																				
Alternative E	250																				
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.																			
	75																				
Alternative F	250	1.84	4	2.90	19	2.20	10	1.55	1	2.96	1	2.36	1	2.12	5	1.21	2	0.72	0	3.98	3
	150	1.36	2	2.16	12	1.59	5	1.13	1	2.19	1	1.73	1	1.51	3	0.85	0	0.53	0	3.03	1
	75	0.96	0	1.61	4	1.10	2	0.78	0	1.51	1	1.20	1	1.07	1	0.58	0	0.37	0	2.15	1
Alternative G	250																				
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.																			
	75																				
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.																			

[1] In deciviews (dv).
[2] No Action Alternative was not modeled.

Table F-23 Summary of Maximum Modeled Visibility Impacts at Wyoming Regional Communities from Direct Project Sources Using IMPROVE Background Data, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative or Development Phase	WDR	Big Piney		Big Sandy		Boulder		Bronx		Cora		Daniel		Farson		LaBarge		Merna		Pinedale	
		Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv
No Action[2]	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MAXIMUM PRODUCTION EMISSIONS																					
All alternatives with 3,100 wells	0	0.66	0	0.85	0	0.56	0	0.36	0	0.69	0	0.57	0	0.55	0	0.30	0	0.22	0	1.07	1
MAXIMUM FIELD EMISSIONS																					
Alternative A and Proposed Action	250	2.01	6	3.05	23	2.39	12	1.70	1	3.20	1	2.56	1	2.33	6	1.32	2	0.79	0	4.27	3
Alternative A	150	1.48	2	2.26	13	1.73	6	1.23	1	2.36	1	1.87	1	1.65	5	0.93	0	0.57	0	3.23	2
	75	1.03	1	1.63	3	1.15	3	0.82	0	1.57	1	1.25	1	1.13	3	0.60	0	0.38	0	2.20	1
Alternative B	250	2.15	9	3.45	26	2.68	18	1.91	1	3.62	2	2.90	2	2.62	7	1.48	2	0.90	0	4.87	5
	150	1.56	2	2.53	15	1.92	6	1.35	1	2.61	1	2.07	1	1.82	5	1.03	1	0.64	0	3.61	2
	75	1.04	1	1.79	6	1.24	3	0.85	0	1.66	1	1.32	1	1.21	3	0.66	0	0.42	0	2.39	1
Alternative C	250	1.71	4	2.77	17	2.20	9	1.52	1	2.89	1	2.29	1	2.15	5	1.26	2	0.70	0	3.85	2
	150	1.16	1	1.95	8	1.53	3	1.04	1	2.03	1	1.59	1	1.46	3	0.87	0	0.49	0	2.75	1
	75	0.70	0	1.30	1	0.93	0	0.62	0	1.21	1	0.94	0	0.92	0	0.54	0	0.30	0	1.66	1
Alternative D	250																				
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.																			
	75																				
Alternative E	250																				
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.																			
	75																				
Alternative F	250	2.12	7	3.19	24	2.52	16	1.78	1	3.36	2	2.69	1	2.42	6	1.40	2	0.83	0	4.49	3
	150	1.57	2	2.39	14	1.82	6	1.30	1	2.50	1	1.99	1	1.74	5	0.98	0	0.61	0	3.44	2
	75	1.11	1	1.79	7	1.26	3	0.90	0	1.74	1	1.37	1	1.23	3	0.67	0	0.42	0	2.45	1
Alternative G	250																				
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.																			
	75																				
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.																			

[1] In deciviews (dv).
[2] No Action Alternative was not modeled.

Table F-24 Summary of Maximum Modeled In-field Pollutant Concentrations from Direct Project Sources Compared to Ambient Air Quality Standards, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.[1]

Alternative or Development Phase	WDR	NO_2			SO_2									PM_{10}						$PM_{2.5}$					
		Direct Modeled Impact	Total Concentration[2]	NAAQS/ WAAQS	Direct Modeled Impact			Total Concentration[2]			NAAQS/WAAQS			Direct Modeled Impact		Total Concentration[2]		NAAQS/WAAQS		Direct Modeled Impact		Total Concentration[2]		NAAQS/WAAQS[3]	
		Annual	Annual	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual
No Action[4]	--	--	3.4	100	--	--	--	132	43	9	1,300	365/260	80/60	--	--	33	16	150	50	--	--	13	5	65	15
MAXIMUM PRODUCTION EMISSIONS																									
All alternatives with 3,100 wells	0	2.5	5.9	100	0.2	0.1	0.0	132.2	43.1	9.0	1,300	365/260	80/60	90.4	12.6	123.4	28.6	150	50	16.3	2.0	29.3	7.0	65	15
MAXIMUM FIELD EMISSIONS																									
Alternative A and Proposed Action	250	13.7	17.1	100	18.3	3.7	0.4	150.3	46.7	9.4	1,300	365/260	80/60	113.2	16.0	146.2	32.0	150	50	21.6	3.1	34.6	8.1	65	15
Alternative A	150	12.0	15.4	100	13.9	3.4	0.3	145.9	46.4	9.3	1,300	365/260	80/60	103.9	14.7	136.9	30.7	150	50	19.3	2.8	32.3	7.8	65	15
	75	10.3	13.7	100	13.9	3.4	0.3	145.9	46.4	9.3	1,300	365/260	80/60	97.0	13.7	130.0	29.7	150	50	17.7	2.6	30.7	7.6	65	15
Alternative B	250	16.2	19.6	100	22.5	4.6	0.5	154.5	47.6	9.5	1,300	365/260	80/60	113.6	16.1	146.6	32.1	150	50	22.0	3.2	35.0	8.2	65	15
	150	14.3	17.7	100	17.1	4.2	0.4	149.1	47.2	9.4	1,300	365/260	80/60	104.1	14.8	137.1	30.8	150	50	19.4	2.9	32.4	7.9	65	15
	75	11.8	15.2	100	17.1	4.2	0.3	149.1	47.2	9.3	1,300	365/260	80/60	97.1	13.8	130.1	29.8	150	50	17.7	2.7	30.7	7.7	65	15
Alternative C	250	12.6	16.0	100	18.3	3.7	0.4	150.3	46.7	9.4	1,300	365/260	80/60	59.3	8.6	92.3	24.6	150	50	11.9	1.9	24.9	6.9	65	15
	150	11.0	14.4	100	13.9	3.4	0.3	145.9	46.4	9.3	1,300	365/260	80/60	49.9	7.3	82.9	23.3	150	50	9.5	1.7	22.5	6.7	65	15
	75	9.1	12.5	100	13.9	3.4	0.3	145.9	46.4	9.3	1,300	365/260	80/60	43.1	6.3	76.1	22.3	150	50	8.3	1.4	21.3	6.4	65	15
Alternative D	250																								
	150													Alternative D was not modeled. Results would be between Alternative A and Alternative C.											
	75																								
Alternative E	250																								
	150													Alternative E was not modeled. Results would be between Alternative B and Alternative F.											
	75																								
Alternative F	250	16.5	19.9	100	20.3	4.1	0.4	152.3	47.1	9.4	1,300	365/260	80/60	105.6	15.1	138.6	31.1	150	50	20.4	3.2	33.4	8.2	65	15
	150	15.7	19.1	100	15.4	3.8	0.4	147.4	46.8	9.4	1,300	365/260	80/60	104.0	14.9	137.0	30.9	150	50	19.4	3.1	32.4	8.1	65	15
	75	14.2	17.6	100	15.4	3.8	0.3	147.4	46.8	9.3	1,300	365/260	80/60	97.1	14.0	130.1	30.0	150	50	17.7	2.9	30.7	7.9	65	15
Alternative G	250																								
	150													Alternative G was not modeled. Results would be between Alternative A and Alternative F.											
	75																								
Preferred Alternative	250													Preferred Alternative was not modeled. Results would be similar to Alternative G.											

[1] In µg/m^3.

[2] Total concentration includes direct modeled impact and background concentration; annual background NO_2 concentration = 3.4 µg/m^3; annual background SO_2 concentration = 9 µg/m^3; 8-hr background SO_2 concentration = 43 µg/m^3; 3-hr background SO_2 concentration = 132 µg/m^3; annual background PM_{10} concentration = 16 µg/m^3; 24-hr background PM_{10} concentration = 33 µg/m^3; annual background $PM_{2.5}$ concentration = 5 µg/m^3; 24-hr background $PM_{2.5}$ concentration = 13 µg/m^3.

[3] WAAQS for $PM_{2.5}$ are not yet enforced in Wyoming per WAQSR Chapter 2, Section 2(b)(v).

[4] No Action Alternative was not modeled; total concentration represents background concentration only.

Table F-25 RFD Projects Included in Cumulative Analysis, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Big Piney-LaBarge	LaBarge Creek - MA 12
BTA Bravo	Little Greys River - MA 31
Burley	Lower Bush Creek CBM (Kennedy Oil)
Burlington Little Monument	Lower Greys River - MA 32
Cave Gulch	Moxa Arch
Cliff Creek - USFS Management Area (MA) 22	Mulligan Draw
Compressor Station, Pipeline- Williams	Pinedale Anticline Project
Continental Divide/Wamsutter II EIS	Piney Creeks - MA 26
Cooper Reservoir (1998)	Pioneer Gas Plant
Copper Ridge Shallow Gas Project	Powder River Basin
Cottonwood Creek - MA 25	Riley Ridge
Creston-Blue Gap	Road Hollow
Cutthroat Gas Processing Plant	Sierra Madre
Desolation Flats	Soda Unit
Eighth Granger Gas Plant Expansion	South Baggs
Fontenelle Natural Gas Infill Drilling	South Piney
Ham's Fork Pipeline	Stage Coach
Hickey Mountain-Table Mountain	Upper Hoback - MA 23
Horse Creek - MA 24	Vermillion Basin
Horse Trap	Willow Creek - MA 49
Jack Morrow Hills	Wind River (Bureau of Indian Affairs [BIA] lead agency)

Table F-26 Summary of Maximum Modeled Cumulative NO_2 Concentrations at PSD Class I and Sensitive PSD Class II Areas from Direct Project and Regional Sources for Comparison to Ambient Air Quality Standards[1], Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.[2]

Alternative or Development Phase	WDR	Bridger Wilderness Class I		Fitzpatrick Wilderness Class I		Popo Agie Wilderness Class II		Wind River Roadless Area Class II		Grand Teton National Park Class I		Teton Wilderness Class I		Yellowstone National Park Class I		Washakie Wilderness Area Class I	
		Direct Modeled Impact	Total Concentration[3]	Direct Modeled Impact	Total Concentration[3]	Direct Modeled Impact	Total Concentration[3]	Direct Modeled Impact	Total Concentration[3]	Direct Modeled Impact	Total Concentration[3]	Direct Modeled Impact	Total Concentration[3]	Direct Modeled Impact	Total Concentration[3]	Direct Modeled Impact	Total Concentration[3]
		Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual
No Action	--	0.119	3.52	0.011	3.41	0.027	3.43	0.024	3.42	0.029	3.43	0.007	3.41	0.003	3.40	0.009	3.41
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	0.143	3.54	0.012	3.41	0.036	3.44	0.030	3.43	0.029	3.43	0.007	3.41	0.003	3.40	0.010	3.41
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	0.245	3.64	0.017	3.42	0.070	3.47	0.051	3.45	0.030	3.43	0.007	3.41	0.003	3.40	0.010	3.41
Alternative A	150	0.203	3.60	0.015	3.42	0.057	3.46	0.043	3.44	0.030	3.43	0.007	3.41	0.003	3.40	0.010	3.41
	75	0.170	3.57	0.014	3.41	0.047	3.45	0.036	3.44	0.029	3.43	0.007	3.41	0.003	3.40	0.010	3.41
Alternative B	250	0.265	3.67	0.017	3.42	0.076	3.48	0.055	3.45	0.030	3.43	0.007	3.41	0.003	3.40	0.010	3.41
	150	0.216	3.62	0.016	3.42	0.060	3.46	0.045	3.45	0.030	3.43	0.007	3.41	0.003	3.40	0.010	3.41
	75	0.175	3.57	0.014	3.41	0.049	3.45	0.037	3.44	0.030	3.43	0.007	3.41	0.003	3.40	0.010	3.41
Alternative C	250	0.233	3.63	0.016	3.42	0.067	3.47	0.048	3.45	0.030	3.43	0.007	3.41	0.003	3.40	0.010	3.41
	150	0.192	3.59	0.015	3.41	0.054	3.45	0.041	3.44	0.030	3.43	0.007	3.41	0.003	3.40	0.010	3.41
	75	0.159	3.56	0.013	3.41	0.044	3.44	0.034	3.43	0.029	3.43	0.007	3.41	0.003	3.40	0.010	3.41
Alternative D	250																
	150							Alternative D was not modeled. Results would be between Alternative A and Alternative C.									
	75																
Alternative E	250																
	150							Alternative E was not modeled. Results would be between Alternative B and Alternative F.									
	75																
Alternative F	250	0.254	3.65	0.017	3.42	0.072	3.47	0.052	3.45	0.030	3.43	0.007	3.41	0.003	3.40	0.010	3.41
	150	0.209	3.61	0.015	3.42	0.058	3.46	0.044	3.44	0.030	3.43	0.007	3.41	0.003	3.40	0.010	3.41
	75	0.176	3.58	0.014	3.41	0.049	3.45	0.038	3.44	0.030	3.43	0.007	3.41	0.003	3.40	0.010	3.41
Alternative G	250																
	150							Alternative G was not modeled. Results would be between Alternative A and Alternative F.									
	75																
Preferred Alternative	250							Preferred Alternative was not modeled. Results would be similar to Alternative G.									

[1] Ambient Air Quality Standards: annual NAAQS/WAAQS = 100 µg/m^3.
[2] In µg/m^3.
[3] Total concentration includes direct modeled impact and background concentration; annual background NO_2 concentration = 3.4 µg/m^3.

Table F-27 Summary of Maximum Modeled Cumulative SO_2 Concentrations at PSD Class I and Sensitive PSD Class II Areas from Direct Project and Regional Sources for Comparison to Ambient Air Quality Standards[1], Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.[2]

Alternative or Development Phase	WDR	Bridger Wilderness Class I						Fitzpatrick Wilderness Class I						Popo Agie Wilderness Class II						Wind River Roadless Area Class II					
		Direct Modeled Impact			Total Concentration[3]			Direct Modeled Impact			Total Concentration[1,2]			Direct Modeled Impact			Total Concentration[3]			Direct Modeled Impact			Total Concentration[3]		
		3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Amual
No Action	--	0.16	0.04	0.00	132.16	43.04	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.11	0.01	0.00	132.11	43.01	9.00
MAXIMUM PRODUCTION EMISSIONS																									
All alternatives with 3,100 wells	0	0.16	0.04	0.00	132.16	43.04	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.11	0.01	0.00	132.11	43.01	9.00
MAXIMUM FIELD EMISSIONS																									
Alternative A and Proposed Action	250	0.24	0.08	0.00	132.24	43.08	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.08	0.01	0.00	132.08	43.01	9.00	0.12	0.01	0.00	132.12	43.01	9.00
Alternative A	150	0.17	0.05	0.00	132.17	43.05	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.06	0.01	0.00	132.06	43.01	9.00	0.11	0.01	0.00	132.11	43.01	9.00
	75	0.17	0.04	0.00	132.17	43.04	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.03	0.01	0.00	132.03	43.01	9.00	0.11	0.01	0.00	132.11	43.01	9.00
Alternative B	250	0.29	0.10	0.00	132.29	43.10	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.10	0.02	0.00	132.10	43.02	9.00	0.12	0.02	0.00	132.12	43.02	9.00
	150	0.19	0.06	0.00	132.19	43.06	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.07	0.01	0.00	132.07	43.01	9.00	0.11	0.01	0.00	132.11	43.01	9.00
	75	0.17	0.04	0.00	132.17	43.04	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.03	0.01	0.00	132.03	43.01	9.00	0.11	0.01	0.00	132.11	43.01	9.00
Alternative C	250	0.24	0.08	0.00	132.24	43.08	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.08	0.01	0.00	132.08	43.01	9.00	0.12	0.01	0.00	132.12	43.01	9.00
	150	0.17	0.05	0.00	132.17	43.05	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.06	0.01	0.00	132.06	43.01	9.00	0.11	0.01	0.00	132.11	43.01	9.00
	75	0.17	0.04	0.00	132.17	43.04	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.03	0.01	0.00	132.03	43.01	9.00	0.11	0.01	0.00	132.11	43.01	9.00
Alternative D	250																								
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.																							
	75																								
Alternative E	250																								
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.																							
	75																								
Alternative F	250	0.27	0.09	0.00	132.27	43.09	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.09	0.02	0.00	132.09	43.02	9.00	0.12	0.01	0.00	132.12	43.01	9.00
	150	0.17	0.06	0.00	132.17	43.06	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.06	0.01	0.00	132.06	43.01	9.00	0.11	0.01	0.00	132.11	43.01	9.00
	75	0.17	0.04	0.00	132.17	43.04	9.00	0.02	0.01	0.00	132.02	43.01	9.00	0.03	0.01	0.00	132.03	43.01	9.00	0.11	0.01	0.00	132.11	43.01	9.00
Alternative G	250																								
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.																							
	75																								
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.																							

[1] Ambient Air Quality Standards: 3-hr NAAQS/WAAQS = 1,300 µg/m^3; 24-hr NAAQS/WAAQS = 365 µg/m^3 (NAAQS) and 260 µg/m^3 (WAAQS); Annual NAAQS/WAAQS = 100 µg/m^3 80 (NAAQS) and 60 µg/m^3 (WAAQS).

[2] In µg/m^3.

[3] Total concentration includes direct modeled impact and background concentration; annual background SO_2 concentration = 9 µg/m^3; 8-hr background SO_2 concentration = 43 µg/m^3; 3-hr background SO_2 concentration = 132 µg/m^3.

Table F-27 (continued)

Alternative or Development Phase	WDR	Grand Teton National Park Class I						Teton Wilderness Class I						Yellowstone National Park Class I						Washakie Wilderness Area Class I					
		Direct Modeled Impact			Total Concentration[3]			Direct Modeled Impact			Total Concentration[1,2]			Direct Modeled Impact			Total Concentration[3]			Direct Modeled Impact			Total Concentration[3]		
		3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Amual
No Action	--	0.20	0.04	0.01	132.20	43.04	9.01	0.04	0.01	0.00	132.04	43.01	9.00	0.07	0.01	0.00	132.07	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00
MAXIMUM PRODUCTION EMISSIONS																									
All alternatives with 3,100 wells	0	0.20	0.04	0.01	132.20	43.04	9.01	0.04	0.01	0.00	132.04	43.01	9.00	0.07	0.01	0.00	132.07	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00
MAXIMUM FIELD EMISSIONS																									
Alternative A and Proposed Action	250	0.20	0.04	0.01	132.20	43.04	9.01	0.04	0.01	0.00	132.04	43.01	9.00	0.07	0.01	0.00	132.07	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00
Alternative A	150	0.20	0.04	0.01	132.20	43.04	9.01	0.04	0.01	0.00	132.04	43.01	9.00	0.07	0.01	0.00	132.07	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00
	75	0.20	0.04	0.01	132.20	43.04	9.01	0.04	0.01	0.00	132.04	43.01	9.00	0.07	0.01	0.00	132.07	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00
Alternative B	250	0.20	0.04	0.01	132.20	43.04	9.01	0.04	0.01	0.00	132.04	43.01	9.00	0.07	0.01	0.00	132.07	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00
	150	0.20	0.04	0.01	132.20	43.04	9.01	0.04	0.01	0.00	132.04	43.01	9.00	0.07	0.01	0.00	132.07	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00
	75	0.20	0.04	0.01	132.20	43.04	9.01	0.04	0.01	0.00	132.04	43.01	9.00	0.07	0.01	0.00	132.07	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00
Alternative C	250	0.20	0.04	0.01	132.20	43.04	9.01	0.04	0.01	0.00	132.04	43.01	9.00	0.07	0.01	0.00	132.07	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00
	150	0.20	0.04	0.01	132.20	43.04	9.01	0.04	0.01	0.00	132.04	43.01	9.00	0.07	0.01	0.00	132.07	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00
	75	0.20	0.04	0.01	132.20	43.04	9.01	0.04	0.01	0.00	132.04	43.01	9.00	0.07	0.01	0.00	132.07	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00
Alternative D	250																								
	150							Alternative D was not modeled. Results would be between Alternative A and Alternative C.																	
	75																								
Alternative E	250																								
	150							Alternative E was not modeled. Results would be between Alternative B and Alternative F.																	
	75																								
Alternative F	250	0.20	0.04	0.01	132.20	43.04	9.01	0.04	0.01	0.00	132.04	43.01	9.00	0.07	0.01	0.00	132.07	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00
	150	0.20	0.04	0.01	132.20	43.04	9.01	0.04	0.01	0.00	132.04	43.01	9.00	0.07	0.01	0.00	132.07	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00
	75	0.20	0.04	0.01	132.20	43.04	9.01	0.04	0.01	0.00	132.04	43.01	9.00	0.07	0.01	0.00	132.07	43.01	9.00	0.02	0.01	0.00	132.02	43.01	9.00
Alternative G	250																								
	150							Alternative G was not modeled. Results would be between Alternative A and Alternative F.																	
	75																								
Preferred Alternative	250							Preferred Alternative was not modeled. Results would be similar to Alternative G.																	

[1] Ambient Air Quality Standards: 3-hr NAAQS/WAAQS = 1,300 µg/m^3; 24-hr NAAQS/WAAQS = = 365 µg/m^3 (NAAQS) and 260 µg/m^3 (WAAQS); Annual NAAQS/WAAQS = 100 µg/m^3 80 (NAAQS) and 60 µg/m^3 (WAAQS).
[2] In µg/m^3.
[3] Total concentration includes direct modeled impact and background concentration; annual background SO_2 concentration = 9 µg/m^3; 8-hr background SO_2 concentration = 43 µg/m^3; 3-hr background SO_2 concentration = 132 µg/m^3.

Table F-28 Summary of Maximum Modeled Cumulative PM_{10} Concentration Impacts at PSD Class I and Sensitive PSD Class II Areas from Direct Project and Regional Sources Compared to Ambient Air Quality Standards[1], Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.[2]

Alternative or Development Phase	WDR	Bridger Wilderness Class I				Fitzpatrick Wilderness Class I				Popo Agie Wilderness Class II				Wind River Roadless Area Class II			
		Direct Modeled Impact		Total Concentration[3]		Direct Modeled Impact		Total Concentration[3]		Direct Modeled Impact		Total Concentration[3]		Direct Modeled Impact		Total Concentration[3]	
		24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual
No Action	--	0.46	0.018	33.46	16.02	0.13	0.005	33.13	16.00	0.14	0.008	33.14	16.01	0.21	0.009	33.21	16.01
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	0.91	0.047	33.91	16.05	0.15	0.008	33.15	16.01	0.20	0.015	33.20	16.01	0.23	0.014	33.23	16.01
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	1.82	0.081	34.82	16.08	0.20	0.011	33.20	16.01	0.31	0.024	33.31	16.02	0.29	0.021	33.29	16.02
Alternative A	150	1.45	0.067	34.45	16.07	0.17	0.010	33.17	16.01	0.27	0.020	33.27	16.02	0.27	0.018	33.27	16.02
	75	1.16	0.057	34.16	16.06	0.16	0.009	33.16	16.01	0.24	0.017	33.24	16.02	0.25	0.016	33.25	16.02
Alternative B	250	1.87	0.086	34.87	16.09	0.22	0.012	33.22	16.01	0.30	0.026	33.30	16.03	0.30	0.022	33.30	16.02
	150	1.48	0.071	34.48	16.07	0.18	0.010	33.18	16.01	0.26	0.021	33.26	16.02	0.27	0.019	33.27	16.02
	75	1.16	0.058	34.16	16.06	0.16	0.009	33.16	16.01	0.23	0.018	33.23	16.02	0.25	0.016	33.25	16.02
Alternative C	250	1.40	0.063	34.40	16.06	0.18	0.010	33.18	16.01	0.23	0.020	33.23	16.02	0.28	0.017	33.28	16.02
	150	1.03	0.050	34.03	16.05	0.17	0.008	33.17	16.01	0.20	0.016	33.20	16.02	0.26	0.015	33.26	16.01
	75	0.75	0.040	33.75	16.04	0.16	0.007	33.16	16.01	0.18	0.013	33.18	16.01	0.24	0.013	33.24	16.01
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	1.82	0.081	34.82	16.08	0.21	0.011	33.21	16.01	0.30	0.024	33.30	16.02	0.29	0.021	33.29	16.02
	150	1.47	0.069	34.47	16.07	0.18	0.010	33.18	16.01	0.27	0.020	33.27	16.02	0.27	0.018	33.27	16.02
	75	1.20	0.059	34.20	16.06	0.16	0.009	33.16	16.01	0.24	0.018	33.24	16.02	0.25	0.016	33.25	16.02
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] Ambient Air Quality Standards: 24-hr NAAQS/WAAQS = 150 µg/m^3; Annual NAAQS/WAAQS = 50 µg/m^3.
[2] In µg/m^3.
[3] Total concentration includes direct modeled impact and background concentration; annual background PM_{10} concentration = 16 µg/m^3; 24-hr background PM_{10} concentration = 33 µg/m^3.

Table F-28 (continued)

Alternative or Development Phase	WDR	Grand Teton National Park Class I				Teton Wilderness Class I				Yellowstone National Park Class I				Washakie Wilderness Area Class I			
		Direct Modeled Impact		Total Concentration[3]		Direct Modeled Impact		Total Concentration[3]		Direct Modeled Impact		Total Concentration[3]		Direct Modeled Impact		Total Concentration[3]	
		24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual
No Action	--	0.12	0.012	33.12	16.01	0.04	0.005	33.04	16.00	0.05	0.004	33.05	16.00	0.04	0.003	33.04	16.00
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	0.13	0.013	33.13	16.01	0.05	0.006	33.05	16.01	0.05	0.004	33.05	16.00	0.05	0.004	33.05	16.00
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	0.14	0.015	33.14	16.02	0.08	0.007	33.08	16.01	0.06	0.005	33.06	16.00	0.09	0.005	33.09	16.00
Alternative A	150	0.13	0.014	33.13	16.01	0.07	0.006	33.07	16.01	0.06	0.005	33.06	16.00	0.07	0.004	33.07	16.00
	75	0.13	0.014	33.13	16.01	0.06	0.006	33.06	16.01	0.05	0.004	33.05	16.00	0.06	0.004	33.06	16.00
Alternative B	250	0.15	0.015	33.15	16.02	0.08	0.007	33.08	16.01	0.07	0.005	33.07	16.00	0.10	0.005	33.10	16.01
	150	0.13	0.015	33.13	16.01	0.07	0.006	33.07	16.01	0.06	0.005	33.06	16.00	0.08	0.005	33.08	16.00
	75	0.13	0.014	33.13	16.01	0.06	0.006	33.06	16.01	0.05	0.004	33.05	16.00	0.06	0.004	33.06	16.00
Alternative C	250	0.14	0.015	33.14	16.01	0.07	0.006	33.07	16.01	0.06	0.005	33.06	16.00	0.08	0.005	33.08	16.00
	150	0.13	0.014	33.13	16.01	0.06	0.006	33.06	16.01	0.05	0.004	33.05	16.00	0.06	0.004	33.06	16.00
	75	0.13	0.013	33.13	16.01	0.05	0.006	33.05	16.01	0.05	0.004	33.05	16.00	0.05	0.004	33.05	16.00
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	0.14	0.015	33.14	16.02	0.08	0.007	33.08	16.01	0.06	0.005	33.06	16.00	0.09	0.005	33.09	16.00
	150	0.13	0.014	33.13	16.01	0.07	0.006	33.07	16.01	0.06	0.005	33.06	16.00	0.08	0.004	33.08	16.00
	75	0.13	0.014	33.13	16.01	0.06	0.006	33.06	16.01	0.05	0.004	33.05	16.00	0.06	0.004	33.06	16.00
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] Ambient Air Quality Standards: 24-hr NAAQS/WAAQS = 150 µg/m^3; Annual NAAQS/WAAQS = 50 µg/m^3.
[2] In µg/m^3.
[3] Total concentration includes direct modeled impact and background concentration; annual background PM_{10} concentration = 16 µg/m^3; 24-hr background PM_{10} concentration = 33 µg/m^3.

Table F-29 Summary of Maximum Modeled Cumulative $PM_{2.5}$ Concentrations at PSD Class I and Sensitive PSD Class II Areas from Direct Project and Regional Sources Compared to Ambient Air Quality Standards[1], Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.[2]

Alternative or Development Phase	WDR	Bridger Wilderness Class I				Fitzpatrick Wilderness Class I				Popo Agie Wilderness Class II				Wind River Roadless Area Class II			
		Direct Modeled Impact		Total Concentration[3]		Direct Modeled Impact		Total Concentration[3]		Direct Modeled Impact		Total Concentration[3]		Direct Modeled Impact		Total Concentration[3]	
		24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual
No Action	--	0.43	0.019	13.43	5.02	0.12	0.006	13.12	5.01	0.13	0.009	13.13	5.01	0.19	0.010	13.19	5.01
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	0.91	0.048	13.91	5.05	0.14	0.008	13.14	5.01	0.20	0.016	13.20	5.02	0.22	0.015	13.22	5.02
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	1.82	0.081	14.82	5.08	0.20	0.012	13.20	5.01	0.31	0.026	13.31	5.03	0.28	0.022	13.28	5.02
Alternative A	150	1.45	0.068	14.45	5.07	0.17	0.011	13.17	5.01	0.27	0.022	13.27	5.02	0.26	0.019	13.26	5.02
	75	1.15	0.058	14.15	5.06	0.16	0.009	13.16	5.01	0.23	0.019	13.23	5.02	0.24	0.017	13.24	5.02
Alternative B	250	1.87	0.087	14.87	5.09	0.22	0.013	13.22	5.01	0.30	0.028	13.30	5.03	0.29	0.023	13.29	5.02
	150	1.48	0.071	14.48	5.07	0.18	0.011	13.18	5.01	0.26	0.023	13.26	5.02	0.26	0.020	13.26	5.02
	75	1.15	0.059	14.15	5.06	0.16	0.010	13.16	5.01	0.23	0.020	13.23	5.02	0.24	0.017	13.24	5.02
Alternative C	250	1.40	0.064	14.40	5.06	0.18	0.011	13.18	5.01	0.23	0.023	13.23	5.02	0.27	0.018	13.27	5.02
	150	1.03	0.051	14.03	5.05	0.16	0.009	13.16	5.01	0.19	0.019	13.19	5.02	0.25	0.016	13.25	5.02
	75	0.75	0.041	13.75	5.04	0.15	0.008	13.15	5.01	0.17	0.015	13.17	5.02	0.23	0.014	13.23	5.01
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	1.81	0.082	14.81	5.08	0.21	0.012	13.21	5.01	0.30	0.027	13.30	5.03	0.29	0.022	13.29	5.02
	150	1.47	0.070	14.47	5.07	0.17	0.011	13.17	5.01	0.27	0.023	13.27	5.02	0.26	0.020	13.26	5.02
	75	1.19	0.060	14.19	5.06	0.16	0.010	13.16	5.01	0.24	0.020	13.24	5.02	0.24	0.018	13.24	5.02
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] Ambient Air Quality Standards: 24-hr NAAQS/WAAQS = 65 µg/m^3; Annual NAAQS/WAAQS = 15 µg/m^3; the WAAQS are not yet enforced in Wyoming per WAQSR Chapter 2, Section 2(b)(v).
[2] In µg/m^3.
[3] Total concentration includes direct modeled impact and background concentration; annual background $PM_{2.5}$ concentration = 5 µg/m^3; 24-hr background $PM_{2.5}$ concentration = 13 µg/m^3.

Table F-29 (continued)

Alternative or Development Phase	WDR	Grand Teton National Park Class I				Teton Wilderness Class I				Yellowstone National Park Class I				Washakie Wilderness Area Class I			
		Direct Modeled Impact		Total Concentration[3]		Direct Modeled Impact		Total Concentration[3]		Direct Modeled Impact		Total Concentration[3]		Direct Modeled Impact		Total Concentration[3]	
		24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual
No Action	--	0.11	0.013	13.11	5.01	0.04	0.005	13.04	5.01	0.04	0.004	13.04	5.00	0.04	0.004	13.04	5.00
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	0.13	0.013	33.13	16.01	0.05	0.006	33.05	16.01	0.05	0.004	33.05	16.00	0.05	0.004	33.05	16.00
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	0.14	0.015	13.14	5.02	0.08	0.007	13.08	5.01	0.06	0.005	13.06	5.01	0.09	0.005	13.09	5.01
Alternative A	150	0.13	0.015	13.13	5.01	0.06	0.006	13.06	5.01	0.06	0.005	13.06	5.00	0.07	0.005	13.07	5.00
	75	0.12	0.014	13.12	5.01	0.06	0.006	13.06	5.01	0.05	0.005	13.05	5.00	0.06	0.005	13.06	5.00
Alternative B	250	0.15	0.016	13.15	5.02	0.08	0.007	13.08	5.01	0.07	0.005	13.07	5.01	0.10	0.006	13.10	5.01
	150	0.13	0.015	13.13	5.02	0.07	0.007	13.07	5.01	0.06	0.005	13.06	5.00	0.08	0.005	13.08	5.00
	75	0.12	0.014	13.12	5.01	0.06	0.006	13.06	5.01	0.05	0.005	13.05	5.00	0.06	0.005	13.06	5.00
Alternative C	250	0.13	0.015	13.13	5.02	0.07	0.007	13.07	5.01	0.06	0.005	13.06	5.00	0.08	0.005	13.08	5.01
	150	0.12	0.014	13.12	5.01	0.06	0.006	13.06	5.01	0.05	0.005	13.05	5.00	0.06	0.005	13.06	5.00
	75	0.12	0.014	13.12	5.01	0.05	0.006	13.05	5.01	0.05	0.004	13.05	5.00	0.05	0.004	13.05	5.00
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	0.14	0.016	13.14	5.02	0.08	0.007	13.08	5.01	0.06	0.005	13.06	5.01	0.09	0.005	13.09	5.01
	150	0.13	0.015	13.13	5.01	0.07	0.007	13.07	5.01	0.06	0.005	13.06	5.00	0.08	0.005	13.08	5.00
	75	0.12	0.014	13.12	5.01	0.06	0.006	13.06	5.01	0.05	0.005	13.05	5.00	0.06	0.005	13.06	5.00
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] Ambient Air Quality Standards: 24-hr NAAQS/WAAQS = 65 µg/m^3; Annual NAAQS/WAAQS = 15 µg/m^3; the WAAQS are not yet enforced in Wyoming per WAQSR Chapter 2, Section 2(b)(v).
[2] In µg/m^3.
[3] Total concentration includes direct modeled impact and background concentration; annual background $PM_{2.5}$ concentration = 5 µg/m^3; 24-hr background $PM_{2.5}$ concentration = 13 µg/m^3.

Table F-30 Summary of Maximum Modeled Cumulative NO_2 Concentrations at PSD Class I and Sensitive PSD Class II Areas Compared to Applicable PSD Increments, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.[1]

Alternative or Development Phase	WDR	Bridger Wilderness Class I		Fitzpatrick Wilderness Class I		Popo Agie Wilderness Class II		Wind River Roadless Area Class II		Grand Teton National Park Class I		Teton Wilderness Class I		Yellowstone National Park Class I		Washakie Wilderness Area Class I	
		Direct Modeled Impact	PSD Increment	Direct Modeled Impact	PSD Increment	Direct Modeled Impact	PSD Increment	Direct Modeled Impact	PSD Increment	Direct Modeled Impact	PSD Increment	Direct Modeled Impact	PSD Increment	Direct Modeled Impact	PSD Increment	Direct Modeled Impact	PSD Increment
		Annual		Annual		Annual		Annual		Annual		Annual		Annual		Annual	
No Action[2]	--	0.119	2.5	0.011	2.5	0.027	25	0.024	25	0.029	2.5	0.007	2.5	0.003	2.5	0.009	2.5
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	0.143	2.5	0.012	2.5	0.036	25	0.030	25	0.029	2.5	0.007	2.5	0.003	2.5	0.010	2.5
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	0.245	2.5	0.017	2.5	0.070	25	0.051	25	0.030	2.5	0.007	2.5	0.003	2.5	0.010	2.5
Alternative A	150	0.203	2.5	0.015	2.5	0.057	25	0.043	25	0.030	2.5	0.007	2.5	0.003	2.5	0.010	2.5
	75	0.170	2.5	0.014	2.5	0.047	25	0.036	25	0.029	2.5	0.007	2.5	0.003	2.5	0.010	2.5
Alternative B	250	0.265	2.5	0.017	2.5	0.076	25	0.055	25	0.030	2.5	0.007	2.5	0.003	2.5	0.010	2.5
	150	0.216	2.5	0.016	2.5	0.060	25	0.045	25	0.030	2.5	0.007	2.5	0.003	2.5	0.010	2.5
	75	0.175	2.5	0.014	2.5	0.049	25	0.037	25	0.030	2.5	0.007	2.5	0.003	2.5	0.010	2.5
Alternative C	250	0.233	2.5	0.016	2.5	0.067	25	0.048	25	0.030	2.5	0.007	2.5	0.003	2.5	0.010	2.5
	150	0.192	2.5	0.015	2.5	0.054	25	0.041	25	0.030	2.5	0.007	2.5	0.003	2.5	0.010	2.5
	75	0.159	2.5	0.013	2.5	0.044	25	0.034	25	0.029	2.5	0.007	2.5	0.003	2.5	0.010	2.5
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	0.254	2.5	0.017	2.5	0.072	25	0.052	25	0.030	2.5	0.007	2.5	0.003	2.5	0.010	2.5
	150	0.209	2.5	0.015	2.5	0.058	25	0.044	25	0.030	2.5	0.007	2.5	0.003	2.5	0.010	2.5
	75	0.176	2.5	0.014	2.5	0.049	25	0.038	25	0.030	2.5	0.007	2.5	0.003	2.5	0.010	2.5
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] In $\mu g/m^3$. Annual background NO_X concentration = 3.4 $\mu g/m^3$.

Table F-31 Summary of Maximum Modeled Cumulative SO_2 Concentrations at PSD Class I and Sensitive PSD Class II Areas Compared to Applicable PSD Increments, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.[1]

Alternative or Development Phase	WDR	Bridger Wilderness Class I						Fitzpatrick Wilderness Class I						Popo Agie Wilderness Class II						Wind River Roadless Area Class II					
		Direct Modeled Impact			PSD Increment			Direct Modeled Impact			PSD Increment			Direct Modeled Impact			PSD Increment			Direct Modeled Impact			PSD Increment		
		3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual
No Action	--	0.16	0.04	0.00	25	5	2	0.02	0.01	0.00	25	5	2	0.02	0.01	0.00	512	91	20	0.11	0.01	0.00	512	91	20
MAXIMUM PRODUCTION EMISSIONS																									
All alternatives with 3,100 wells	0	0.16	0.04	0.00	25	5	2	0.02	0.01	0.00	25	5	2	0.02	0.01	0.00	512	91	20	0.11	0.01	0.00	512	91	20
MAXIMUM FIELD EMISSIONS																									
Alternative A and Proposed Action	250	0.24	0.08	0.00	25	5	2	0.02	0.01	0.00	25	5	2	0.08	0.01	0.00	512	91	20	0.12	0.01	0.00	512	91	20
Alternative A	150	0.17	0.05	0.00	25	5	2	0.02	0.01	0.00	25	5	2	0.06	0.01	0.00	512	91	20	0.11	0.01	0.00	512	91	20
	75	0.17	0.04	0.00	25	5	2	0.02	0.01	0.00	25	5	2	0.03	0.01	0.00	512	91	20	0.11	0.01	0.00	512	91	20
Alternative B	250	0.29	0.10	0.00	25	5	2	0.02	0.01	0.00	25	5	2	0.10	0.02	0.00	512	91	20	0.12	0.02	0.00	512	91	20
	150	0.19	0.06	0.00	25	5	2	0.02	0.01	0.00	25	5	2	0.07	0.01	0.00	512	91	20	0.11	0.01	0.00	512	91	20
	75	0.17	0.04	0.00	25	5	2	0.02	0.01	0.00	25	5	2	0.03	0.01	0.00	512	91	20	0.11	0.01	0.00	512	91	20
Alternative C	250	0.24	0.08	0.00	25	5	2	0.02	0.01	0.00	25	5	2	0.08	0.01	0.00	512	91	20	0.12	0.01	0.00	512	91	20
	150	0.17	0.05	0.00	25	5	2	0.02	0.01	0.00	25	5	2	0.06	0.01	0.00	512	91	20	0.11	0.01	0.00	512	91	20
	75	0.17	0.04	0.00	25	5	2	0.02	0.01	0.00	25	5	2	0.03	0.01	0.00	512	91	20	0.11	0.01	0.00	512	91	20
Alternative D	250																								
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.																							
	75																								
Alternative E	250																								
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.																							
	75																								
Alternative F	250	0.27	0.09	0.00	25	5	2	0.02	0.01	0.00	25	5	2	0.09	0.02	0.00	512	91	20	0.12	0.01	0.00	512	91	20
	150	0.17	0.06	0.00	25	5	2	0.02	0.01	0.00	25	5	2	0.06	0.01	0.00	512	91	20	0.11	0.01	0.00	512	91	20
	75	0.17	0.04	0.00	25	5	2	0.02	0.01	0.00	25	5	2	0.03	0.01	0.00	512	91	20	0.11	0.01	0.00	512	91	20
Alternative G	250																								
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.																							
	75																								
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.																							

[1] In $\mu g/m^3$. Annual background SO_2 concentration = 9 $\mu g/m^3$; 8-hr background SO_2 concentration = 43 $\mu g/m^3$; 3-hr background SO_2 concentration = 132 $\mu g/m^3$.

Table F-31 (continued)

Alternative or Development Phase	WDR	Grand Teton National Park Class I						Teton Wilderness Class I						Yellowstone National Park Class I						Washakie Wilderness Area Class I					
		Direct Modeled Impact			PSD Increment			Direct Modeled Impact			PSD Increment			Direct Modeled Impact			PSD Increment			Direct Modeled Impact			PSD Increment		
		3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual
No Action	--	0.20	0.04	0.01	25	5	2	0.04	0.01	0.00	25	5	2	0.07	0.01	0.00	25	5	2	0.02	0.01	0.00	25	5	2
MAXIMUM PRODUCTION EMISSIONS																									
All alternatives with 3,100 wells	0	0.20	0.04	0.01	25	5	2	0.04	0.01	0.00	25	5	2	0.07	0.01	0.00	25	5	2	0.02	0.01	0.00	25	5	2
MAXIMUM FIELD EMISSIONS																									
Alternative A and Proposed Action	250	0.20	0.04	0.01	25	5	2	0.04	0.01	0.00	25	5	2	0.07	0.01	0.00	25	5	2	0.02	0.01	0.00	25	5	2
Alternative A	150	0.20	0.04	0.01	25	5	2	0.04	0.01	0.00	25	5	2	0.07	0.01	0.00	25	5	2	0.02	0.01	0.00	25	5	2
	75	0.20	0.04	0.01	25	5	2	0.04	0.01	0.00	25	5	2	0.07	0.01	0.00	25	5	2	0.02	0.01	0.00	25	5	2
Alternative B	250	0.20	0.04	0.01	25	5	2	0.04	0.01	0.00	25	5	2	0.07	0.01	0.00	25	5	2	0.02	0.01	0.00	25	5	2
	150	0.20	0.04	0.01	25	5	2	0.04	0.01	0.00	25	5	2	0.07	0.01	0.00	25	5	2	0.02	0.01	0.00	25	5	2
	75	0.20	0.04	0.01	25	5	2	0.04	0.01	0.00	25	5	2	0.07	0.01	0.00	25	5	2	0.02	0.01	0.00	25	5	2
Alternative C	250	0.20	0.04	0.01	25	5	2	0.04	0.01	0.00	25	5	2	0.07	0.01	0.00	25	5	2	0.02	0.01	0.00	25	5	2
	150	0.20	0.04	0.01	25	5	2	0.04	0.01	0.00	25	5	2	0.07	0.01	0.00	25	5	2	0.02	0.01	0.00	25	5	2
	75	0.20	0.04	0.01	25	5	2	0.04	0.01	0.00	25	5	2	0.07	0.01	0.00	25	5	2	0.02	0.01	0.00	25	5	2
Alternative D	250																								
	150							Alternative D was not modeled. Results would be between Alternative A and Alternative C.																	
	75																								
Alternative E	250																								
	150							Alternative E was not modeled. Results would be between Alternative B and Alternative F.																	
	75																								
Alternative F	250	0.20	0.04	0.01	25	5	2	0.04	0.01	0.00	25	5	2	0.07	0.01	0.00	25	5	2	0.02	0.01	0.00	25	5	2
	150	0.20	0.04	0.01	25	5	2	0.04	0.01	0.00	25	5	2	0.07	0.01	0.00	25	5	2	0.02	0.01	0.00	25	5	2
	75	0.20	0.04	0.01	25	5	2	0.04	0.01	0.00	25	5	2	0.07	0.01	0.00	25	5	2	0.02	0.01	0.00	25	5	2
Alternative G	250																								
	150							Alternative G was not modeled. Results would be between Alternative A and Alternative F.																	
	75																								
Preferred Alternative	250							Preferred Alternative was not modeled. Results would be similar to Alternative G.																	

[1] In $\mu g/m^3$. Annual background SO_2 concentration = 9 $\mu g/m^3$; 8-hr background SO_2 concentration = 43 $\mu g/m^3$; 3-hr background SO_2 concentration = 132 $\mu g/m^3$.

Table F-32 Summary of Maximum Modeled Cumulative PM_{10} Concentrations at PSD Class I and Sensitive PSD Class II Areas Compared to Applicable PSD Increments, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.[1]

Alternative or Development Phase	WDR	Bridger Wilderness Class I				Fitzpatrick Wilderness Class I				Popo Agie Wilderness Class II				Wind River Roadless Area Class II			
		Direct Modeled Impact		PSD Increment		Direct Modeled Impact		PSD Increment		Direct Modeled Impact		PSD Increment		Direct Modeled Impact		PSD Increment	
		24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual
No Action	--	0.46	0.018	8	4	0.13	0.005	8	4	0.14	0.008	30	17	0.21	0.009	30	17
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	0.91	0.047	8	4	0.15	0.008	8	4	0.20	0.015	30	17	0.23	0.014	30	17
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	1.82	0.081	8	4	0.20	0.011	8	4	0.31	0.024	30	17	0.29	0.021	30	17
Alternative A	150	1.45	0.067	8	4	0.17	0.010	8	4	0.27	0.020	30	17	0.27	0.018	30	17
	75	1.16	0.057	8	4	0.16	0.009	8	4	0.24	0.017	30	17	0.25	0.016	30	17
Alternative B	250	1.87	0.086	8	4	0.22	0.012	8	4	0.30	0.026	30	17	0.30	0.022	30	17
	150	1.48	0.071	8	4	0.18	0.010	8	4	0.26	0.021	30	17	0.27	0.019	30	17
	75	1.16	0.058	8	4	0.16	0.009	8	4	0.23	0.018	30	17	0.25	0.016	30	17
Alternative C	250	1.40	0.063	8	4	0.18	0.010	8	4	0.23	0.020	30	17	0.28	0.017	30	17
	150	1.03	0.050	8	4	0.17	0.008	8	4	0.20	0.016	30	17	0.26	0.015	30	17
	75	0.75	0.040	8	4	0.16	0.007	8	4	0.18	0.013	30	17	0.24	0.013	30	17
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	1.82	0.081	8	4	0.21	0.011	8	4	0.30	0.024	30	17	0.29	0.021	30	17
	150	1.47	0.069	8	4	0.18	0.010	8	4	0.27	0.020	30	17	0.27	0.018	30	17
	75	1.20	0.059	8	4	0.16	0.009	8	4	0.24	0.018	30	17	0.25	0.016	30	17
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] In $\mu g/m^3$. Annual background PM_{10} concentration = 16 $\mu g/m^3$; 24-hr background PM_{10} concentration = 33 $\mu g/m^3$.

Table F-32 (continued)

Alternative or Development Phase	WDR	Bridger Wilderness Class I				Fitzpatrick Wilderness Class I				Popo Agie Wilderness Class II				Wind River Roadless Area Class II			
		Direct Modeled Impact		PSD Increment		Direct Modeled Impact		PSD Increment		Direct Modeled Impact		PSD Increment		Direct Modeled Impact		PSD Increment	
		24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual
No Action	--	0.12	0.012	8	4	0.04	0.005	8	4	0.05	0.004	8	4	0.04	0.003	8	4
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	0.13	0.013	8	4	0.05	0.006	8	4	0.05	0.004	8	4	0.05	0.004	8	4
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	0.14	0.015	8	4	0.08	0.007	8	4	0.06	0.005	8	4	0.09	0.005	8	4
Alternative A	150	0.13	0.014	8	4	0.07	0.006	8	4	0.06	0.005	8	4	0.07	0.004	8	4
	75	0.13	0.014	8	4	0.06	0.006	8	4	0.05	0.004	8	4	0.06	0.004	8	4
Alternative B	250	0.15	0.015	8	4	0.08	0.007	8	4	0.07	0.005	8	4	0.10	0.005	8	4
	150	0.13	0.015	8	4	0.07	0.006	8	4	0.06	0.005	8	4	0.08	0.005	8	4
	75	0.13	0.014	8	4	0.06	0.006	8	4	0.05	0.004	8	4	0.06	0.004	8	4
Alternative C	250	0.14	0.015	8	4	0.07	0.006	8	4	0.06	0.005	8	4	0.08	0.005	8	4
	150	0.13	0.014	8	4	0.06	0.006	8	4	0.05	0.004	8	4	0.06	0.004	8	4
	75	0.13	0.013	8	4	0.05	0.006	8	4	0.05	0.004	8	4	0.05	0.004	8	4
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	0.14	0.015	8	4	0.08	0.007	8	4	0.06	0.005	8	4	0.09	0.005	8	4
	150	0.13	0.014	8	4	0.07	0.006	8	4	0.06	0.005	8	4	0.08	0.004	8	4
	75	0.13	0.014	8	4	0.06	0.006	8	4	0.05	0.004	8	4	0.06	0.004	8	4
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] In $\mu g/m^3$. Annual background PM_{10} concentration = 16 $\mu g/m^3$; 24-hr background PM_{10} concentration = 33 $\mu g/m^3$.

Table F-33 Summary of Maximum Modeled Cumulative Visibility Impacts at PSD Class I and Sensitive PSD Class II Areas from Direct Project and Regional Sources Using FLAG Background Data, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

		Bridger Wilderness Class I		Fitzpatrick Wilderness Class I		Popo Agie Wilderness Class II		Wind River Roadless Area Class II		Grand Teton National Park Class I		Teton Wilderness Class I		Yellowstone National Park Class I		Washakie Wilderness Area Class I	
Alternative or Development Phase	WDR	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv
No Action	--	1.69	3	0.42	0	0.50	0	0.73	0	0.33	0	0.14	0	0.15	0	0.17	0
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	1.98	4	0.48	0	0.57	0	0.82	0	0.34	0	0.16	0	0.17	0	0.20	0
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	3.65	11	0.76	0	0.85	0	1.08	1	0.50	0	0.23	0	0.25	0	0.34	0
Alternative A	150	2.89	9	0.62	0	0.74	0	0.98	0	0.41	0	0.20	0	0.21	0	0.28	0
	75	2.33	4	0.52	0	0.66	0	0.90	0	0.36	0	0.18	0	0.18	0	0.24	0
Alternative B	250	3.81	15	0.82	0	0.90	0	1.12	2	0.54	0	0.24	0	0.27	0	0.37	0
	150	2.99	11	0.65	0	0.77	0	1.00	1	0.43	0	0.21	0	0.22	0	0.30	0
	75	2.38	5	0.53	0	0.68	0	0.90	0	0.36	0	0.18	0	0.18	0	0.25	0
Alternative C	250	3.27	11	0.71	0	0.83	0	1.06	1	0.47	0	0.22	0	0.24	0	0.32	0
	150	2.56	8	0.57	0	0.72	0	0.95	0	0.38	0	0.20	0	0.19	0	0.27	0
	75	2.22	4	0.51	0	0.64	0	0.87	0	0.36	0	0.17	0	0.17	0	0.23	0
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	3.73	14	0.78	0	0.87	0	1.11	1	0.51	0	0.24	0	0.26	0	0.35	0
	150	2.97	10	0.63	0	0.76	0	0.99	0	0.42	0	0.21	0	0.21	0	0.29	0
	75	2.39	6	0.53	0	0.68	0	0.91	0	0.36	0	0.18	0	0.18	0	0.25	0
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] In deciviews (dv).

Table F-34 Summary of Maximum Modeled Cumulative Visibility Impacts at PSD Class I and Sensitive PSD Class II Areas from Direct Project and Regional Sources Using IMPROVE Background Data, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

		Bridger Wilderness Class I		Fitzpatrick Wilderness Class I		Popo Agie Wilderness Class II		Wind River Roadless Area Class II		Grand Teton National Park Class I		Teton Wilderness Class I		Yellowstone National Park Class I		Washakie Wilderness Area Class I	
Alternative or Development Phase	WDR	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv	Maximum Visibility Impact[1]	Number of Days >1.0 dv
No Action	–	1.94	3	0.49	0	0.58	0	0.81	0	0.33	0	0.14	0	0.16	0	0.17	0
MAXIMUM PRODUCTION EMISSIONS																	
All alternatives with 3,100 wells	0	2.26	4	0.56	0	0.66	0	0.92	0	0.35	0	0.16	0	0.17	0	0.20	0
MAXIMUM FIELD EMISSIONS																	
Alternative A and Proposed Action	250	4.01	17	0.87	0	0.99	0	1.21	2	0.50	0	0.24	0	0.25	0	0.34	0
Alternative A	150	3.19	9	0.71	0	0.86	0	1.09	2	0.41	0	0.21	0	0.21	0	0.29	0
	75	2.65	7	0.61	0	0.77	0	1.00	0	0.36	0	0.18	0	0.18	0	0.24	0
Alternative B	250	4.18	19	0.95	0	1.04	2	1.25	2	0.54	0	0.25	0	0.27	0	0.37	0
	150	3.30	9	0.76	0	0.90	0	1.11	2	0.44	0	0.21	0	0.22	0	0.30	0
	75	2.71	7	0.61	0	0.78	0	1.01	1	0.36	0	0.18	0	0.18	0	0.25	0
Alternative C	250	3.60	13	0.82	0	0.96	0	1.18	2	0.47	0	0.23	0	0.24	0	0.32	0
	150	2.92	7	0.66	0	0.83	0	1.06	1	0.38	0	0.20	0	0.20	0	0.27	0
	75	2.53	4	0.59	0	0.74	0	0.97	0	0.36	0	0.17	0	0.17	0	0.23	0
Alternative D	250																
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.															
	75																
Alternative E	250																
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.															
	75																
Alternative F	250	4.10	17	0.90	0	1.00	1	1.23	2	0.52	0	0.24	0	0.26	0	0.36	0
	150	3.27	9	0.73	0	0.88	0	1.11	2	0.43	0	0.21	0	0.21	0	0.29	0
	75	2.72	7	0.62	0	0.78	0	1.01	1	0.37	0	0.19	0	0.18	0	0.25	0
Alternative G	250																
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.															
	75																
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.															

[1] In deciviews (dv).

Table F-35 Summary of Maximum Modeled Cumulative Change in ANC at Acid Sensitive Lakes from Direct Project and Regional Sources, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

		Black Joe Lake - Bridger Wilderness Class I		Deep Lake - Bridger Wilderness Class I		Hobbs Lake - Bridger Wilderness Class I		Lazy Boy Lake - Bridger Wilderness Class I		Upper Frozen Lake - Bridger Wilderness Class I		Lower Saddlebag - Popo Agie Wilderness Class II		Ross Lake - Fitzpatrick Wilderness Class I	
Alternative or Development Phase	WDR	ANC Change[1]	Percent ANC Change	ANC Change[1]	Percent ANC Change	ANC Change[1]	Percent ANC Change	ANC Change[1]	Percent ANC Change	ANC Change[1]	Percent ANC Change	ANC Change[1]	Percent ANC Change	ANC Change[1]	Percent ANC Change
Background ANC	--	67.0	--	59.9	--	69.9	--	18.8	--	5.0	--	55.5	--	53.5	--
Level of Acceptable Change (µeq/L)	--	6.70	--	5.99	--	6.99	--	1.00	--	1.00	--	5.55	--	5.35	--
No Action	--	0.085	0.13	0.087	0.14	0.042	0.06	0.025	0.13	0.091	1.83	0.096	0.17	0.026	0.05
MAXIMUM PRODUCTION EMISSIONS															
All alternatives with 3,100 wells	0	0.107	0.16	0.111	0.18	0.046	0.07	0.026	0.14	0.120	2.39	0.122	0.22	0.027	0.05
MAXIMUM FIELD EMISSIONS															
Alternative A and Proposed Action	250	0.185	0.28	0.196	0.33	0.062	0.09	0.032	0.17	0.227	4.53	0.220	0.40	0.032	0.06
Alternative A	150	0.156	0.23	0.164	0.27	0.056	0.08	0.030	0.16	0.187	3.73	0.183	0.33	0.030	0.06
	75	0.132	0.20	0.137	0.23	0.051	0.07	0.028	0.15	0.153	3.06	0.154	0.28	0.029	0.05
Alternative B	250	0.199	0.30	0.211	0.35	0.065	0.09	0.032	0.17	0.246	4.92	0.237	0.43	0.033	0.06
	150	0.164	0.24	0.173	0.29	0.057	0.08	0.030	0.16	0.198	3.97	0.193	0.35	0.031	0.06
	75	0.137	0.20	0.142	0.24	0.051	0.07	0.028	0.15	0.159	3.17	0.160	0.29	0.029	0.05
Alternative C	250	0.177	0.26	0.186	0.31	0.061	0.09	0.031	0.17	0.215	4.31	0.212	0.38	0.032	0.06
	150	0.147	0.22	0.154	0.26	0.054	0.08	0.029	0.16	0.175	3.50	0.175	0.31	0.030	0.06
	75	0.124	0.18	0.128	0.21	0.049	0.07	0.028	0.15	0.142	2.84	0.146	0.26	0.028	0.05
Alternative D	250														
	150					Alternative D was not modeled. Results would be between Alternative A and Alternative C.										
	75														
Alternative E	250														
	150					Alternative E was not modeled. Results would be between Alternative B and Alternative F.										
	75														
Alternative F	250	0.190	0.28	0.202	0.34	0.063	0.09	0.032	0.17	0.234	4.67	0.226	0.41	0.033	0.06
	150	0.159	0.24	0.168	0.28	0.057	0.08	0.030	0.16	0.192	3.84	0.188	0.34	0.031	0.06
	75	0.137	0.20	0.142	0.24	0.052	0.07	0.028	0.15	0.160	3.20	0.160	0.29	0.029	0.05
Alternative G	250														
	150					Alternative G was not modeled. Results would be between Alternative A and Alternative F.										
	75														
Preferred Alternative	250					Preferred Alternative was not modeled. Results would be similar to Alternative G.										

[1] In µeq/L.

Table F-36 Summary of Modeled Cumulative Sulfur (S) Deposition Impacts at PSD Class I and Sensitive PSD Class II Areas from Direct Project and Regional Sources, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.[1]

Alternative or Development Phase	WDR	Bridger Wilderness Class I	Fitzpatrick Wilderness Class I	Popo Agie Wilderness Class II	Wind River Roadless Area Class II	Grand Teton National Park Class I	Teton Wilderness Class I	Yellowstone National Park Class I	Washakie Wilderness Area Class I
No Action	--	-0.001	-0.001	-0.003	-0.001	0.003	0.001	0.001	0.000
MAXIMUM PRODUCTION EMISSIONS									
All alternatives with 3,100 wells	0	-0.001	-0.001	-0.003	-0.001	0.003	0.001	0.001	0.000
MAXIMUM FIELD EMISSIONS									
Alternative A and Proposed Action	250	-0.001	-0.001	-0.002	-0.001	0.003	0.001	0.001	0.000
Alternative A	150	-0.001	-0.001	-0.002	-0.001	0.003	0.001	0.001	0.000
	75	-0.001	-0.001	-0.002	-0.001	0.003	0.001	0.001	0.000
Alternative B	250	-0.001	-0.001	-0.002	-0.001	0.003	0.001	0.001	0.000
	150	-0.001	-0.001	-0.002	-0.001	0.003	0.001	0.001	0.000
	75	-0.001	-0.001	-0.002	-0.001	0.003	0.001	0.001	0.000
Alternative C	250	-0.001	-0.001	-0.002	-0.001	0.003	0.001	0.001	0.000
	150	-0.001	-0.001	-0.002	-0.001	0.003	0.001	0.001	0.000
	75	-0.001	-0.001	-0.002	-0.001	0.003	0.001	0.001	0.000
Alternative D	250	Alternative D was not modeled. Results would be between Alternative A and Alternative C.							
	150								
	75								
Alternative E	250	Alternative E was not modeled. Results would be between Alternative B and Alternative F.							
	150								
	75								
Alternative F	250	-0.001	-0.001	-0.002	-0.001	0.003	0.001	0.001	0.000
	150	-0.001	-0.001	-0.002	-0.001	0.003	0.001	0.001	0.000
	75	-0.001	-0.001	-0.002	-0.001	0.003	0.001	0.001	0.000
Alternative G	250	Alternative G was not modeled. Results would be between Alternative A and Alternative F.							
	150								
	75								
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.							
	150								
	75								

[1] In kg/ha-yr. Sulfur deposition analysis level of concern for cumulative impacts = 5.0 kg/ha-hr.

Table F-37 Summary of Modeled Cumulative Far-field Nitrogen Deposition Impacts at PSD Class I and Sensitive PSD Class II Areas from Direct Project and Regional Sources, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.[1]

Alternative or Development Phase	WDR	Bridger Wilderness Class I	Fitzpatrick Wilderness Class I	Popo Agie Wilderness Class II	Wind River Roadless Area Class II	Grand Teton National Park Class I	Teton Wilderness Class I	Yellowstone National Park Class I	Washakie Wilderness Area Class I
No Action	--	0.030	0.005	0.012	0.011	0.009	0.003	0.002	0.003
MAXIMUM PRODUCTION EMISSIONS									
All alternatives with 3,100 wells	0	0.035	0.006	0.016	0.013	0.009	0.003	0.002	0.004
MAXIMUM FIELD EMISSIONS									
Alternative A and Proposed Action	250	0.057	0.008	0.029	0.021	0.010	0.004	0.003	0.004
Alternative A	150	0.048	0.007	0.024	0.018	0.010	0.003	0.003	0.004
	75	0.041	0.006	0.020	0.015	0.010	0.003	0.002	0.004
Alternative B	250	0.061	0.008	0.031	0.022	0.011	0.004	0.003	0.004
	150	0.051	0.007	0.025	0.019	0.010	0.004	0.003	0.004
	75	0.042	0.007	0.021	0.016	0.010	0.003	0.002	0.004
Alternative C	250	0.055	0.008	0.028	0.020	0.010	0.003	0.003	0.004
	150	0.046	0.007	0.023	0.017	0.010	0.003	0.003	0.004
	75	0.039	0.006	0.019	0.014	0.010	0.003	0.002	0.004
Alternative D	250	Alternative D was not modeled. Results would be between Alternative A and Alternative C.							
	150								
	75								
Alternative E	250	Alternative E was not modeled. Results would be between Alternative B and Alternative F.							
	150								
	75								
Alternative F	250	0.059	0.008	0.030	0.021	0.010	0.004	0.003	0.004
	150	0.049	0.007	0.025	0.018	0.010	0.003	0.003	0.004
	75	0.042	0.007	0.021	0.016	0.010	0.003	0.002	0.004
Alternative G	250	Alternative G was not modeled. Results would be between Alternative A and Alternative F.							
	150								
	75								
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.							
	150								
	75								

[1] In kg/ha-yr. Nitrogen deposition analysis level of concern for cumulative impacts = 3.0 kg/ha-hr.

Table F-38 Summary of Maximum Modeled Visibility Impacts at Wyoming Regional Communities from Direct Project and Regional Sources Using FLAG Background Data, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative or Development Phase	WDR	Big Piney		Big Sandy		Boulder		Bronx		Cora		Daniel		Farson		Labarge		Merna		Pinedale	
		Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv
No Action	--	1.91	5	1.27	1	2.56	4	0.66	0	0.74	0	0.68	0	1.33	3	1.62	6	0.88	0	1.55	2
MAXIMUM PRODUCTION EMISSIONS																					
All alternatives with 3,100 wells	0	1.98	7	1.64	4	2.67	5	0.69	0	0.81	0	0.79	0	1.47	6	1.79	6	0.91	0	1.69	4
MAXIMUM FIELD EMISSIONS																					
Alternative A and Proposed Action	250	2.29	16	3.29	31	3.26	19	1.56	1	2.92	6	2.34	6	2.49	11	2.54	9	1.00	0	3.91	8
Alternative A	150	2.09	13	2.60	20	2.89	11	1.15	1	2.18	3	1.74	2	1.99	10	2.27	6	0.96	0	2.98	8
	75	2.04	10	2.06	10	2.78	8	0.80	0	1.49	1	1.20	1	1.73	10	2.04	6	0.94	0	2.07	5
Alternative B	250	2.41	20	3.64	34	3.48	23	1.74	1	3.29	7	2.64	10	2.68	12	2.66	12	1.06	3	4.44	9
	150	2.10	13	2.84	23	2.91	13	1.25	1	2.40	3	1.92	3	2.10	10	2.34	6	0.97	0	3.32	8
	75	2.05	10	2.20	13	2.79	9	0.82	0	1.57	1	1.26	1	1.78	10	2.07	6	0.94	0	2.23	5
Alternative C	250	2.24	15	3.04	23	3.11	16	1.40	1	2.65	5	2.10	4	2.36	10	2.50	9	0.99	0	3.52	8
	150	2.08	12	2.34	15	2.84	10	0.98	0	1.89	1	1.49	1	1.86	10	2.22	6	0.96	0	2.55	6
	75	2.03	8	1.78	8	2.74	6	0.72	0	1.18	1	0.93	0	1.62	9	1.99	6	0.93	0	1.79	4
Alternative D	250																				
		Alternative D was not modeled. Results would be between Alternative A and Alternative C.																			
	75																				
Alternative E	250																				
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.																			
	75																				
Alternative F	250	2.37	18	3.41	32	3.36	21	1.63	1	3.06	7	2.45	8	2.59	11	2.60	10	1.00	2	4.10	9
150	150	2.10	13	2.72	23	2.90	12	1.21	1	2.30	3	1.84	3	2.05	10	2.30	6	0.97	0	3.16	8
	75	2.05	10	2.19	13	2.79	9	0.86	0	1.63	1	1.31	1	1.78	10	2.08	6	0.94	0	2.29	5
Alternative G	250																				
		Alternative G was not modeled. Results would be between Alternative A and Alternative F.																			
	75																				
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.																			

[1] In deciviews (dv).

Table F-39 Summary of Maximum Modeled Cumulative Visibility Impacts at Wyoming Regional Communities from Direct Project and Regional Sources Using IMPROVE Background Data, Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.

Alternative or Development Phase	WDR	Big Piney		Big Sandy		Boulder		Bronx		Cora		Daniel		Farson		Labarge		Merna		Pinedale	
		Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv	Maximum Visibility Impact[1]	Number of Days > 1.0 dv
No Action	--	2.18	7	1.45	2	2.92	4	0.74	0	0.85	0	0.79	0	1.48	3	1.86	6	0.98	0	1.78	2
MAXIMUM PRODUCTION EMISSIONS																					
All alternatives with 3,100 wells	0	2.26	11	1.88	9	3.04	5	0.77	0	0.93	0	0.89	0	1.69	8	2.05	6	1.01	1	1.94	5
MAXIMUM FIELD EMISSIONS																					
Alternative A and Proposed Action	250	2.62	20	3.62	34	3.70	21	1.79	1	3.32	8	2.67	11	2.75	12	2.90	12	1.13	5	4.41	10
Alternative A	150	2.39	15	2.88	24	3.28	13	1.32	1	2.49	5	1.99	6	2.26	10	2.59	9	1.07	1	3.38	8
	75	2.33	13	2.28	14	3.17	9	0.92	0	1.71	3	1.38	1	1.98	10	2.33	6	1.05	1	2.37	8
Alternative B	250	2.75	22	4.00	36	3.94	21	1.99	4	3.74	10	3.01	14	2.96	13	3.03	12	1.23	6	5.00	15
	150	2.40	17	3.13	28	3.31	16	1.44	1	2.74	6	2.19	7	2.36	10	2.67	9	1.08	2	3.76	8
	75	2.34	14	2.43	16	3.17	9	0.94	0	1.80	3	1.44	2	2.04	10	2.37	6	1.05	1	2.55	8
Alternative C	250	2.55	18	3.35	30	3.54	18	1.60	1	3.01	7	2.41	9	2.61	11	2.85	11	1.10	4	3.99	8
	150	2.38	14	2.58	18	3.23	10	1.13	1	2.16	5	1.71	4	2.13	10	2.54	7	1.07	1	2.91	8
	75	2.32	13	1.97	9	3.12	7	0.80	0	1.36	1	1.08	1	1.85	10	2.28	6	1.04	1	2.05	5
Alternative D	250																				
		Alternative D was not modeled. Results would be between Alternative A and Alternative C.																			
	75																				
Alternative E	250																				
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.																			
	75																				
Alternative F	250	2.70	20	3.75	34	3.80	21	1.87	2	3.48	8	2.80	13	2.86	13	2.96	12	1.16	5	4.63	11
150	150	2.40	16	3.00	25	3.30	14	1.39	1	2.63	6	2.11	6	2.31	10	2.63	10	1.08	1	3.59	8
	75	2.34	14	2.43	16	3.18	9	0.99	0	1.87	3	1.50	2	2.04	10	2.38	6	1.05	1	2.62	8
Alternative G	250																				
		Alternative G was not modeled. Results would be between Alternative A and Alternative F.																			
	75																				
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.																			

[1] In deciviews (dv).

Table F-40 Summary of Maximum Modeled Cumulative In-field Pollutant Concentrations from Direct Project Sources Compared to Ambient Air Quality Standards (100 mg/m3 NAAQS and WAAQS), Jonah Infill Drilling Project, Sublette County, Wyoming, 2005.[1]

Alternative or Development Phase	WDR	NO_X			SO_2									PM_{10}						$PM_{2.5}$					
		Direct Modeled Impact	Total Concentration[2]	NAAQS/ WAAQS	Direct Modeled Impact			Total Concentration[2]			NAAQS/WAAQS			Direct Modeled Impact		Total Concentration[2]		NAAQS/WAAQS		Direct Modeled Impact		Total Concentration[2]		NAAQS/WAAQS[3]	
		Annual	Annual	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	3-hr	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual	24-hr	Annual
No Action	--	1.2	4.6	100	0.7	0.1	0.0	132.7	43.1	9.0	1,300	365/260	80/60	0.3	0.0	33.3	16.0	150	50	0.3	0.0	13.3	5.0	65	15
MAXIMUM PRODUCTION EMISSIONS																									
All alternatives with 3,100 wells	0	3.2	6.6	100	0.7	0.1	0.0	132.7	43.1	9.0	1,300	365/260	80/60	90.5	12.6	123.5	28.6	150	50	16.5	2.0	29.5	7.0	65	15
MAXIMUM FIELD EMISSIONS																									
Alternative A and Proposed Action	250	14.0	17.4	100	18.2	3.6	0.4	150.2	46.6	9.4	1,300	365/260	80/60	113.4	16.0	146.4	32.0	150	50	21.8	3.1	34.8	8.1	65	15
Alternative A	150	12.4	15.8	100	13.9	3.2	0.3	145.9	46.2	9.3	1,300	365/260	80/60	104.0	14.7	137.0	30.7	150	50	19.4	2.9	32.4	7.9	65	15
	75	10.7	14.1	100	13.9	3.2	0.3	145.9	46.2	9.3	1,300	365/260	80/60	97.2	13.8	130.2	29.8	150	50	17.9	2.6	30.9	7.6	65	15
Alternative B	250	16.5	19.9	100	22.4	4.5	0.4	154.4	47.5	9.4	1,300	365/260	80/60	113.8	16.1	146.8	32.1	150	50	22.2	3.3	35.2	8.3	65	15
	150	14.6	18.0	100	17.1	4.0	0.4	149.1	47.0	9.4	1,300	365/260	80/60	104.2	14.8	137.2	30.8	150	50	19.6	3.0	32.6	8.0	65	15
	75	12.2	15.6	100	17.1	4.0	0.3	149.1	47.0	9.3	1,300	365/260	80/60	97.2	13.8	130.2	29.8	150	50	17.9	2.7	30.9	7.7	65	15
Alternative C	250	13.0	16.4	100	18.2	3.6	0.4	150.2	46.6	9.4	1,300	365/260	80/60	59.5	8.6	92.5	24.6	150	50	12.0	2.0	25.0	7.0	65	15
	150	11.3	14.7	100	13.9	3.2	0.3	145.9	46.2	9.3	1,300	365/260	80/60	50.1	7.3	83.1	23.3	150	50	9.7	1.7	22.7	6.7	65	15
	75	9.5	12.9	100	13.9	3.2	0.3	145.9	46.2	9.3	1,300	365/260	80/60	43.2	6.4	76.2	22.4	150	50	8.4	1.5	21.4	6.5	65	15
Alternative D	250																								
	150	Alternative D was not modeled. Results would be between Alternative A and Alternative C.																							
	75																								
Alternative E	250																								
	150	Alternative E was not modeled. Results would be between Alternative B and Alternative F.																							
	75																								
Alternative F	250	16.8	20.2	100	20.2	4.0	0.4	152.2	47.0	9.4	1,300	365/260	80/60	105.7	15.1	138.7	31.1	150	50	20.6	3.2	33.6	8.2	65	15
	150	15.9	19.3	100	15.4	3.6	0.4	147.4	46.6	9.4	1,300	365/260	80/60	104.1	14.9	137.1	30.9	150	50	19.5	3.1	32.5	8.1	65	15
	75	14.6	18.0	100	15.4	3.6	0.3	147.4	46.6	9.3	1,300	365/260	80/60	97.2	14.0	130.2	30.0	150	50	17.9	2.9	30.9	7.9	65	15
Alternative G	250																								
	150	Alternative G was not modeled. Results would be between Alternative A and Alternative F.																							
	75																								
Preferred Alternative	250	Preferred Alternative was not modeled. Results would be similar to Alternative G.																							

[1] In µg/m^3.

[2] Total concentration includes direct modeled impact, including RFD and RFFA, and background concentration; annual background NO_X concentration = 3.4 µg/m^3; annual background SO_2 concentration = 9 µg/m^3; 8-hr background SO_2 concentration = 43 µg/m^3; 3-hr background SO_2 concentration = 132 µg/m^3; annual background PM_{10} concentration = 16 µg/m^3; 24-hr background PM_{10} concentration = 33 µg/m^3; annual background $PM_{2.5}$ concentration = 5 µg/m^3; 24-hr background $PM_{2.5}$ concentration = 13 µg/m^3.

[3] WAAQS for $PM_{2.5}$ are not yet enforced in Wyoming per WAQSR Chapter 2, Section 2(b)(v).