Emissions Summary - All Source Categories

D-J Basin

Description	NOx (tons/year)	VOC (tons/year)
Compressor Engines	11,506	2,393
Condensate tank flaring	58	0
Drill rigs	5,152	357
Exempt engines	2,854	205
Heaters	565	31
Large condensate tanks	0	40,636
Pneumatic devices	0	11,545
Pneumatic pumps	0	836
Small condensate tanks	0	12,874
Spills	0	88
Truck loading of condensate liquid	0	800
Venting - blowdowns	0	1,744
Venting - initial completions	0	500
Venting - recompletions	0	674
Water tank losses	0	1
Workover rigs	553	55
Natural Gas Production, Flares	18	65
Natural Gas Production, Other Not Classified	1	58
Oil Production, Processing Operations: Not Classified	1	5
Natural Gas Processing Facilities, Process Valves	0	54
Natural Gas Processing Facilities, Gas Sweeting: Amine	0	12
Natural Gas Production, Flares Combusting Gases <10(	7	6
Natural Gas Production, Gas Sweetening: Amine Proces	0	0
Natural Gas Production, Flanges and Connections	0	0
Natural Gas Processing Facilities, Relief Valves	0	0
Glycol Dehydrator	12	506
Process Heaters	55	7
Tank Losses	0	283
Unpermitted Fugitives	0	7,564
Permitted Fugitives	0	460
Total	**20,783**	**81,758**

Piceance Basin (in 2006)

http://www.wrapair.org/forums/ogwg/documents

Description	NOx (tons/year)	VOC (tons/year)
Compressor Engines	5,705	1,501
Condensate tank	0	3,405
Drill rigs	5,382	244
Exempt engines	128	34
Flaring	136	0
Gas Plant Truck Loading	0	37
Gas Well Truck Loading	0	96
Glycol Dehydrator	53	2,929
Heaters	589	32
Liquid Separator	0	33

Natural Gas Processing Facilities, Compressor Seals	0	6
Natural Gas Processing Facilities, Flanges and Connecti	0	16
Natural Gas Processing Facilities, Gas Sweeting: Amine	33	161
Natural Gas Processing Facilities, Process Valves	0	2
Natural Gas Production, All Equipt Leak Fugitives	0	78
Natural Gas Production, Compressor Seals	0	107
Natural Gas Production, Flares	15	37
Natural Gas Production, Flares Combusting Gases <10C	0	1
Natural Gas Production, Flares Combusting Gases >10C	79	7
Natural Gas Production, Gas Stripping Operations	0	21
Natural Gas Production, Gas Sweetening: Amine Proces	6	98
Natural Gas Production, Hydrocarbon Skimmer	0	5
Natural Gas Production, Incinerators Burning Waste Gas	7	0
Natural Gas Production, Other Not Classified	37	109
Oil Production, Atmospheric Wash Tank: Flashing Loss	0	2
Oil Production, Fugitives: Compressor Seals	0	3
Oil Production, Miscellaneous Well: General	0	5
Oil Production, Processing Operations: Not Classified	0	107
Oil Production, Well Casing Vents	0	0
Oil Tank	0	0
Oil Well Truck Loading	0	0
Permitted Fugitives	0	364
Pneumatic devices	0	1,883
Pneumatic pumps	0	648
Process Heaters	139	49
Tank Losses	6	19
Unpermitted Fugitives	0	967
Venting - blowdowns	0	2,172
Venting - initial completions	0	10,845
Venting - recompletions	0	1,434
Workover rigs	75	7
Total	**12,390**	**27,464**
TOTAL (2012 Projection)	**9,951**	**20,962**

Uinta Basin (2006)

Description	NOx (tons/year)	VOC (tons/year)
Artificial Lift	2,184	674
Compressor engines	2,207	510
Condensate tank	0	6,195
Condensate tank flaring	1	0
Dehydrator	148	19,470
Dehydrator Flaring	0	0
Drill rigs	4,779	415
Gas Plant Truck Loading	0	3
Heaters	1,016	58
Initial completion Flaring	1	0
Miscellaneous engines	163	39
Oil Tank	0	14,357
Permitted Sources	2,339	1,320
Pneumatic devices	0	14,916

Pneumatic pumps	0	8,386
Truck Loading of Condensate	0	127
Truck Loading of Oil	0	964
Unpermitted Fugitives	0	1,910
Venting - blowdowns	0	292
Venting - Compressor Shutdown	0	782
Venting - Compressor Startup	0	825
Venting - initial completions	0	241
Venting - recompletions	0	37
Workover rigs	255	24
Total	**13,093**	**71,546**

North San Juan Basin

Description	NOx (tons/year)	VOC (tons/year)
Artificial Lift	12	0
Compressor engines	4,947	1,886
Condensate tank	0	27
Dehydrator	4	14
Drill rigs	225	18
Flaring	2	5
Gas Plant Truck Loading	0	0
Gas Well Truck Loading	0	0
Glycol Dehydrator	0	7
Heaters	462	17
Miscellaneous Engines	48	6
Oil Tank	0	165
Oil Well Truck Loading	0	0
Pneumatic devices	0	0
Pneumatic pumps	0	0

Unpermitted Fugitives	0	0

Venting - blowdowns	0	1

Venting - initial completions	0	0

Workover rigs	0	0
Total	**5,700**	**2,147**

South San Juan Basin

Description	NOx (tons/year)	VOC (tons/year)

Compressor engines	35,545	4,180

Drill rigs	848	110

Heaters	805	44

Pneumatic devices	0	1,584

Pneumatic pumps	0	142

Venting - blowdowns	0	13,145

Venting - initial completions	0	14,492

Venting - recompletions	0	57

Workover rigs	876	122

Natural Gas Production, Flares	21	27

Natural Gas Production, Other Not Classified	0	0

Natural Gas Processing Facilities, Process Valves	0	15

Natural Gas Processing Facilities, Gas Sweeting: Amine	0	37

Natural Gas Production, Gas Sweetening: Amine Proces	0	0

Glycol Dehydrator	201	257

Process Heaters	105	23

Permitted Tank Losses	0	1,832

Unpermitted Fugitives	0	4,137

Permitted Fugitives	1	198

Miscellaneous engines	284	2

Artificial Lift	1,498	25

Gas Plant Truck Loading	0	0

Venting - Compressor Startup	0	1

Venting - Compressor Shutdown	0	234

Dehydrator	8	11,116

Dehydrator Flaring	0	0

Condensate tank	0	3,964

Oil Tank	0	2,430

Gas Well Truck Loading	0	127

Oil Well Truck Loading	0	156

Natural Gas Production, Flares Combusting Gases >100	2	0

Natural Gas Production, All Equipt Leak Fugitives	0	7

Natural Gas Production, Incinerators Burning Waste Gas	0	0

Initial completion Flaring	214	0

CBM pump engines	1,374	1,837

Saltwater Disposal Engines	180	1

Reciprocating	14	2

Reciprocating: Crankcase Blowby	0	0

Mechanical Draft	0	0

Loading Racks	0	19

Oil-Water Separation Wastewater Holding Tanks	0	2

Fixed Roof Tank, Specialty Chem-working+breathing+fla	0	10

Crude Oil RVP 5: Breathing Loss (250000 Bbl. Tank Size	0	290

Natural Gas: Flares	1	68

Fixed Roof Tank, Lube Oil, working+breathing+flashing l	0	0

Oil/Water Separator	0	0

Natural Gas: Steam Generators	88	2

10-100 Million Btu/hr	0	0

Pressure Tanks (pressure relief from pop-off valves)	0	0

Natural Gas	0	1

Natural Gas: Incinerators		9	0
Total	**42,075**	**60,697**	

CO (tons/year)	SOx (tons/year)	PM10 (tons/year)
7,062	143	165
317	0	0
2,851	59	353
1,831	1	13
475	3	43
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
231	8	54
60	0	0
2	0	0
0	12	0
0	0	0
0	0	0
39	0	0
0	0	0
0	0	0
0	0	0
41	0	0
31	0	7
0	0	0
0	0	0
0	0	0
12,941	**226**	**636**

CO (tons/year)	SOx (tons/year)	PM10 (tons/year)
4,201	15	74
0	0	0
1,972	242	826
130	0	0
740	0	0
0	0	0
0	0	0
41	0	2
495	4	45
0	0	0

0	0	0
0	0	0
24	0	0
0	0	0
0	0	0
0	0	0
34	9	0
0	43	0
75	0	0
0	0	0
5	0	1
0	0	0
6	0	0
11	0	1
0	0	0
0	0	0
0	0	1
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
151	0	32
5	0	5
0	0	0
0	0	0
0	0	0
0	0	0
31	2	6
7,921	**314**	**992**
7,668	**77**	**374**

http://www.wrapair.org/forums/ogwg/documents/2009-01_1

CO (tons/year)	SOx (tons/year)	PM10 (tons/year)
2,522	1	94
2,318	0	31
0	0	0
3	0	0
124	0	11
1	0	0
1,804	362	354
0	0	0
863	7	80
3	0	0
59	0	1
0	0	0
927	5	32
0	0	0

0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
103	21	21
8,727	**396**	**623**

CO (tons/year)	SOx (tons/year)	PM (tons/year)
6	0	0
6,150	0	11
0	0	0
3	0	0
48	15	16
13	0	0
0	0	0
0	0	0
0	0	0
208	0	25
23	0	0
0	0	0
0	0	0
0	0	0
0	0	0

0 0 0

0 0 0

0 0 0

0	0	0
6,450	**15**	**52**

CO (tons/year) SOx (tons/year) PM (tons/year)

17,452	91	278

429 81 91

676 5 61

0 0 0

0 0 0

0 0 0

0 0 0

0 0 0

501 92 91

98	0	0

0 0 0

0 0 0

0 0 0

0 0 0

143 1 18

37 19 2

0 0 0

0 0 0

1 1 0

51 3 5

1,481	0	8

0 0 0

0 0 0

0 0 0

7 0 1

1	0	0

0 0 0

0 0 0

0 0 0

0 0 0

9 0 0

0 0 0

0 0 0

1,165	0	0

1,245	0	5

68	0	2

24	4	0

0 0 0

0 0 1

0 0 0

0 0 0

0 0 0

0 0 0

2 3 0

0 0 0

0 0 0

77	0	9

0 0 0

0 0 0

2 2 0

2	4	0
23,471	**305**	**574**

Emissions Summary - All Source Categories (2012 Projected)

Description	NOx (tons/yea	VOC (tons/y	CO (tons/
Compressor Engines	6,497	1,736	4,890
Flaring	161	0	874
Drill rigs	1,668	66	511
Exempt engines	197	53	201
Heaters	886	49	744
Pneumatic devices	0	2,833	0
Pneumatic pumps	0	1,002	0
Venting - blowdowns	0	2,444	0
Venting - initial completions	0	4,820	0
Venting - recompletions	0	637	0

Workover rigs	79	7	27
Natural Gas Production, Flares	16	42	35
Natural Gas Production, Other Not Classified	57	114	15
Oil Production, Processing Operations: Not Classified	0	109	0
Natural Gas Processing Facilities, Process Valves	0	3	0
Natural Gas Processing Facilities, Gas Sweeting: Amine Process	43	186	32
Natural Gas Production, Flares Combusting Gases <1000 BTU/scf	0	1	0
Natural Gas Production, Gas Sweetening: Amine Process	7	148	6
Glycol Dehydrator	58	2,371	45
Process Heaters	181	56	190
Tank Losses	6	19	5
Unpermitted Fugitives	0	1,468	0
Permitted Fugitives	0	403	0
Gas Plant Truck Loading	0	41	0
Condensate tank	0	1,895	0
Oil Tank	0	0	0
Gas Well Truck Loading	0	108	0
Oil Well Truck Loading	0	0	0
Natural Gas Production, Compressor Seals	0	134	0
Natural Gas Processing Facilities, Flanges and Connections	0	25	0
Natural Gas Production, Flares Combusting Gases >1000 BTU/scf	88	11	84
Oil Production, Miscellaneous Well: General	0	5	0
Natural Gas Processing Facilities, Compressor Seals	0	6	0
Oil Production, Well Casing Vents	0	0	0
Natural Gas Production, Gas Stripping Operations	0	22	0
Natural Gas Production, All Equipt Leak Fugitives	0	82	0
Oil Production, Atmospheric Wash Tank: Flashing Loss	0	2	0
Natural Gas Production, Hydrocarbon Skimmer	0	5	0
Liquid Separator	0	56	0
Oil Production, Fugitives: Compressor Seals	0	3	0
Natural Gas Production, Incinerators Burning Waste Gas or Augment	8	0	7
Total	**9,951**	**20,962**	**7,668**

http://www.wrapair.org/forums/ogwg/documents/2009-01_12_Projection_Emissions_Piceance_Basin_T

SOx (tons	PM10 (tons/year)
16	83
0	0
1	172
0	0
5	67
0	0
0	0
0	0
0	0
0	0

0	4
9	0
0	2
0	0
0	0
0	0
45	0
0	1
0	2
0	36
0	5
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	1
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
0	0
77	**374**

WRAP Phase III 2006 Activity and Emission Estimates for the DJ, Uinta, Piceance, North San Juan, Sou

Basin	Well Count			Oil Production (bbl)		
	Total	CONV	CBM	Total	Oil Well Oil	Gas Well Condensate
D-J Basin	16,774	16,774	0	14,242,088	0	14,242,088
Uinta Basin	6,881	6,018	863	11,528,121	9,758,247	1,769,874
Piceance Basin	6,315	6,255	60	7,158,305	5,755,076	1,403,229
North San Juan Basin	2,676	1,009	1,667	32,529	27,962	4,567
South San Juan Basin	20,649	16,486	4,163	2,636,811	1,002,060	1,634,751
Wind River Basin	1,350	1,330	20	3,043,459	2,563,912	479,547
Powder River Basin	25,652	7,793	17,859	19,662,896	19,144,596	518,300

Basin	Emissions (tons/yr)				
	NOx	VOC	CO	SOx	PM
D-J Basin	20,783	81,758	12,941	226	636
Uinta Basin	13,093	71,546	8,727	396	623
Piceance Basin	12,390	27,464	7,921	314	992
North San Juan Basin	5,700	2,147	6,450	15	52
South San Juan Basin	42,075	60,697	23,471	305	574
Wind River Basin	1,814	11,981	2,840	1,792	37
Powder River Basin	21,086	14,367	12,873	609	681

Pollutant by well

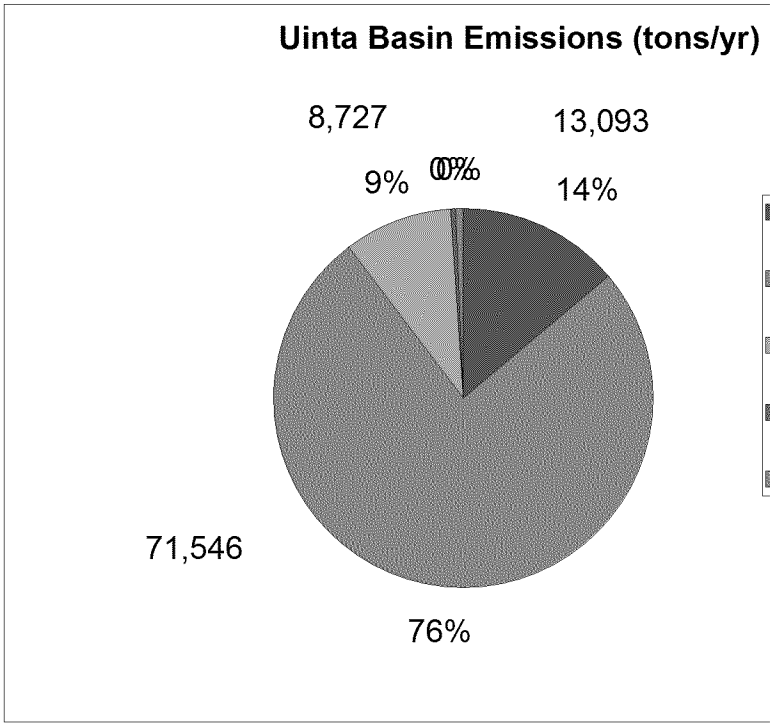
Basin	Emissions (tons/yr)/well				
	NOx	VOC	PM	CO	SOx
D-J Basin	1.24	4.87	0.04	0.77	0.01
Uinta Basin	1.90	10.40	0.09	1.27	0.06
Piceance Basin	1.96	4.35	0.16	1.25	0.05
North San Juan Basin	2.13	0.80	0.02	2.41	0.01
South San Juan Basin	2.04	2.94	0.03	1.14	0.01
Wind River Basin	0.07	0.47	0.00	0.11	0.07
Powder River Basin	0.82	0.56	0.03	0.50	0.02

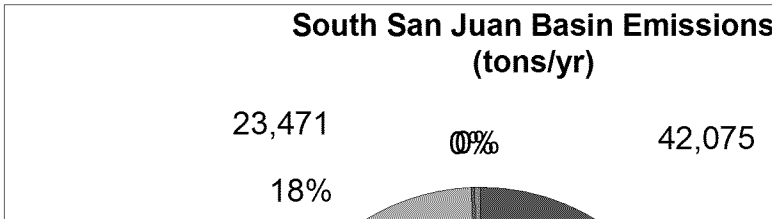
Pollutant by barrel of oil equivelant

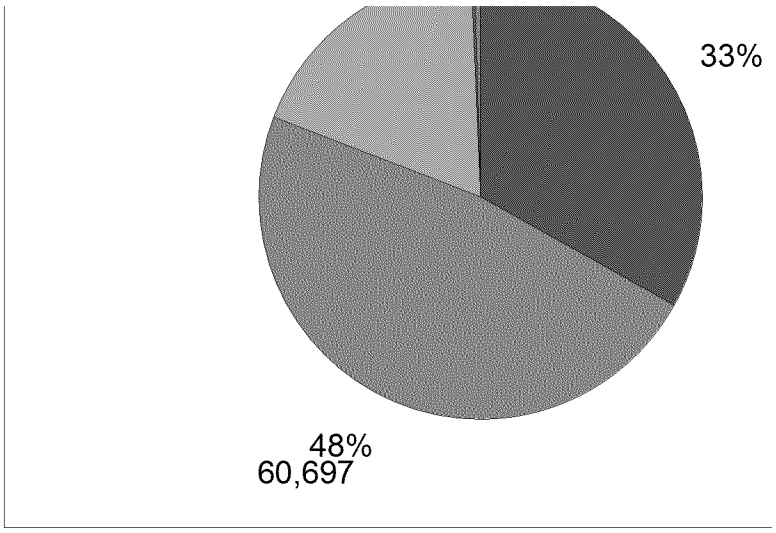
Basin	Emissions (tons/yr)/total boe (million)				
	NOx	VOC	CO	SOx	PM
D-J Basin	373	1,468	232	4.1	11.4
Uinta Basin	187	1,020	124	5.6	8.9
Piceance Basin	152	336	97	3.9	12.2
North San Juan Basin	73	27	82	0.2	0.7
South San Juan Basin	230	332	128	1.7	3.1
Wind River Basin	18	120	28	18.0	0.4
Powder River Basin	212	144	129	6.1	6.8

2010 Projections

Basin	Emissions (tons/yr)/total boe (million)				
	NOx	VOC	CO	SOx	PM
D-J Basin	24408	88989	15412	131	771







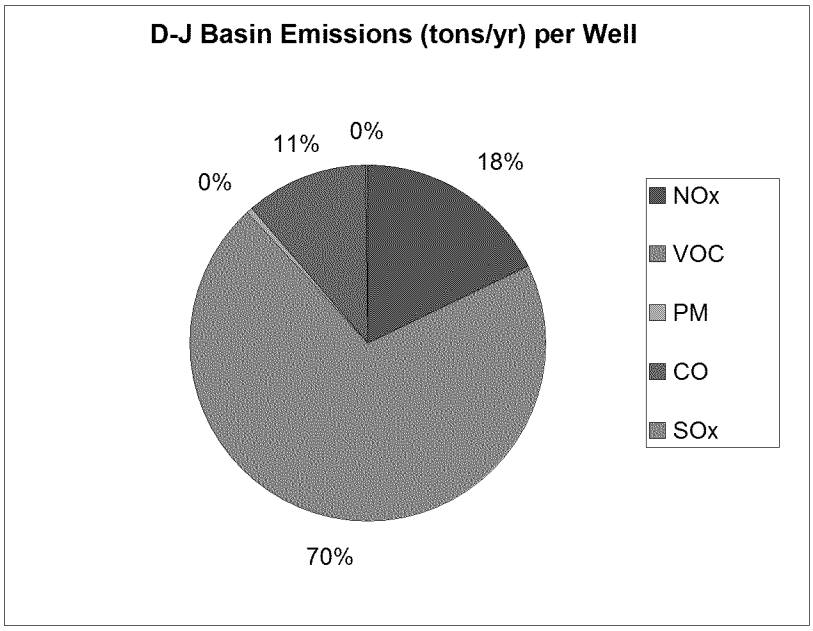
Basin	Well Count			Oil Production (bbl)		
	Total	CONV	CBM	Total	Oil Well Oil	Gas Well Condensate
Uinta Basin	6,881	6,018	863	11,528,121	9,758,247	1,769,874
North San Juan Basin	2,676	1,009	1,667	32,529	27,962	4,567
South San Juan Basin	20,649	16,486	4,163	2,636,811	1,002,060	1,634,751

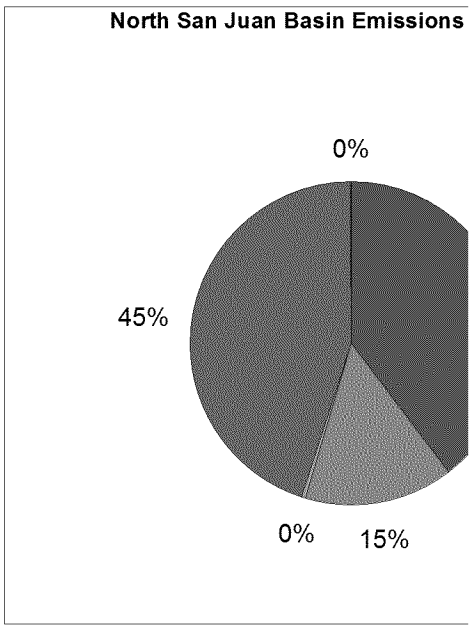
th San Juan, and Wind River Basins http://www.wrapair.org/forums/ogwg/PhaseIII_Inventor

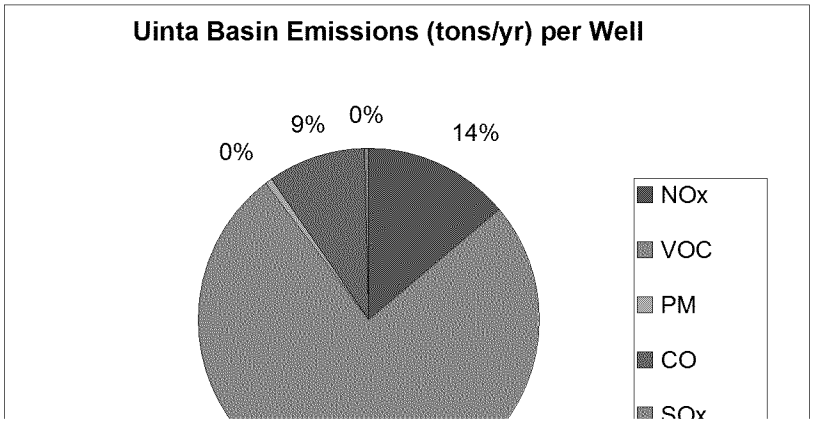
Gas Production (BillionCF)			Spud Counts		
Total	CONV	CBM	Total	Total Barrel of Oil Equivalent	Total BOE (million)
235	235	0	1,500	55,707,058	55.71
332	254	78	1,069	70,173,093	70.17
421	420	1	1,186	81,622,639	81.62
444	29	415	127	78,467,829	78.47
1,020	520	500	919	182,898,266	182.90
198	197	1	98	38,068,457	38.07
453	64	389	3,275	99,686,108	99.69

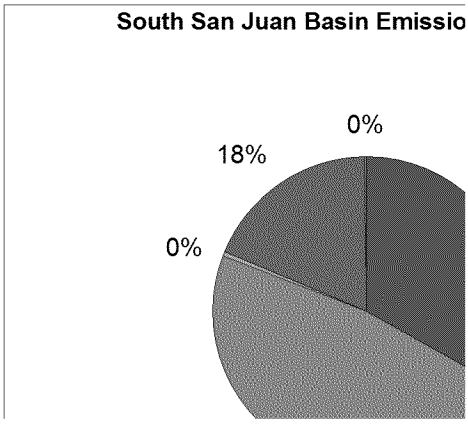
Conversion from cubic ft of natural gas to barrels of oil equivalent (boe)

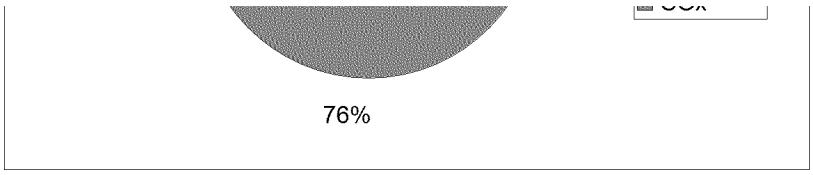
5658.53







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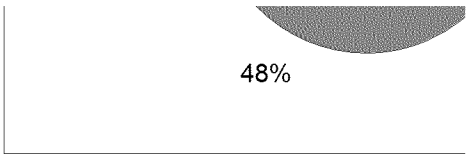
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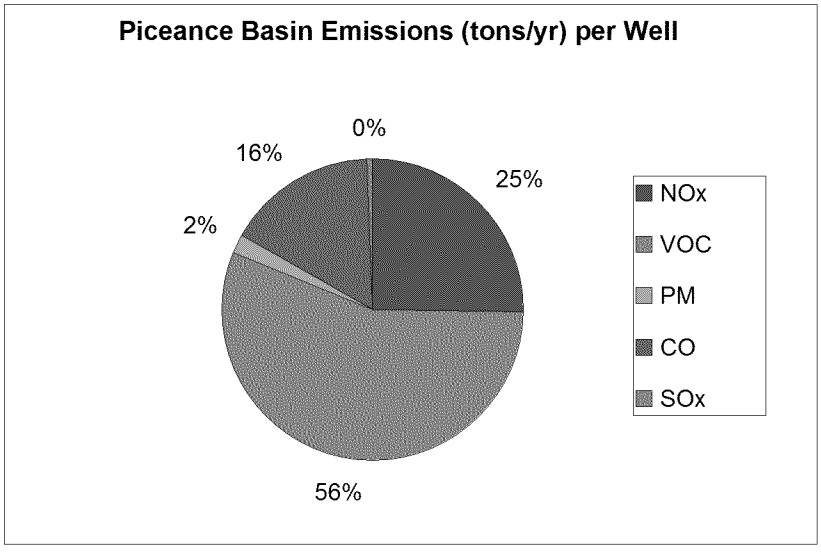
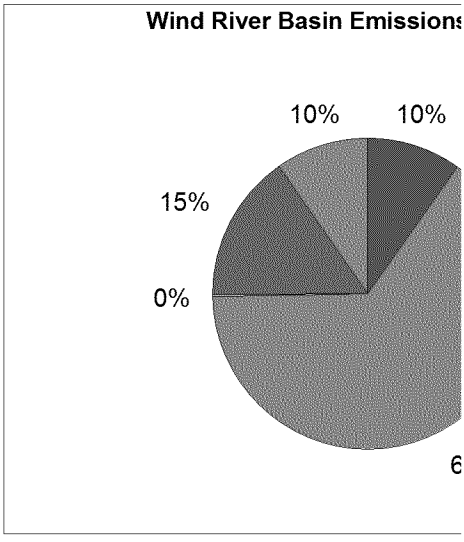
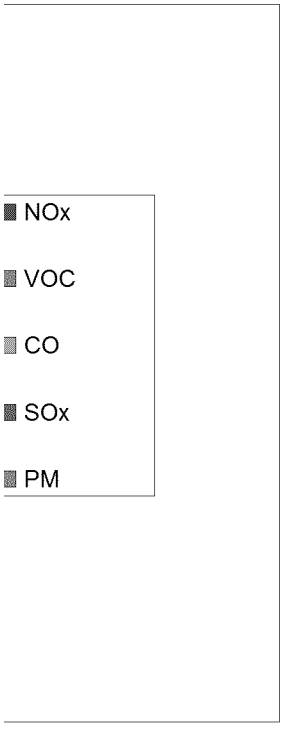
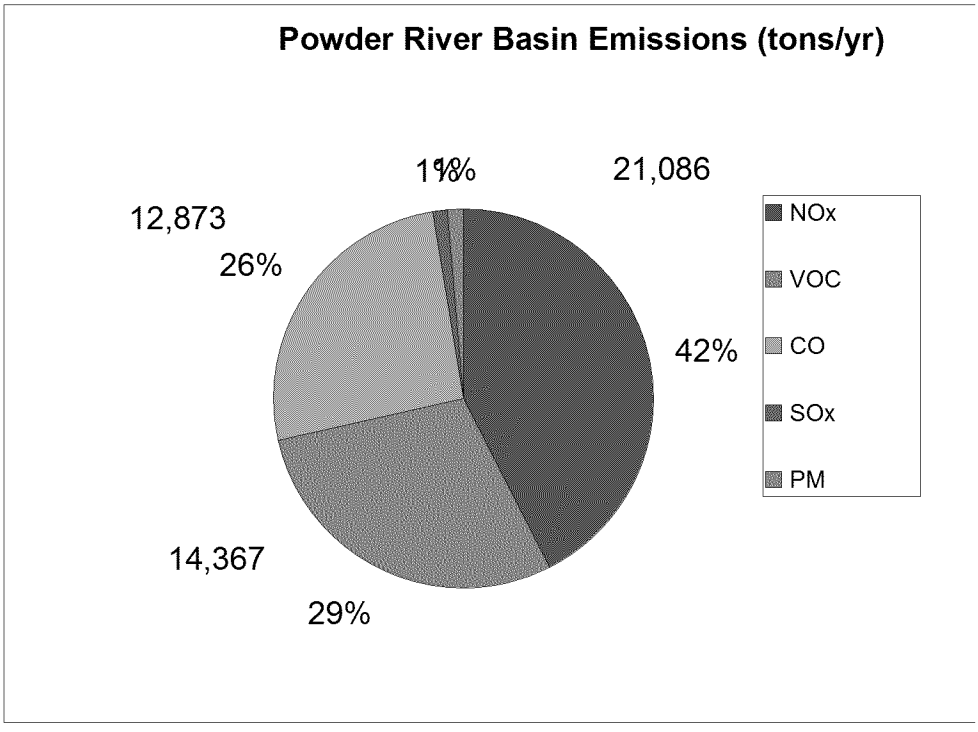
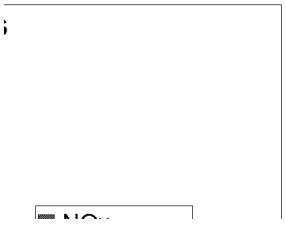
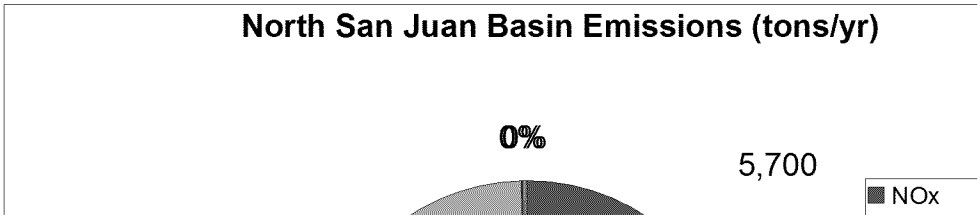

Piceance Basin Emissions (tons/yr) per Well
0%
16%
25%
2%
56%
NOx
VOC
PM
CO
SOx

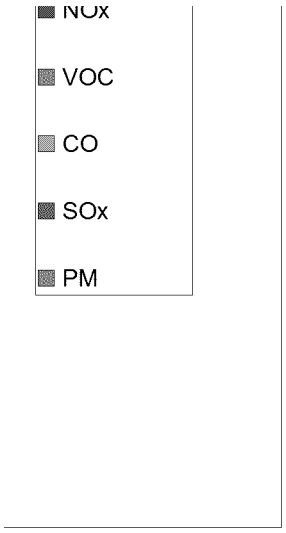

Wind River Basin Emissions
10%
10%
15%
0%

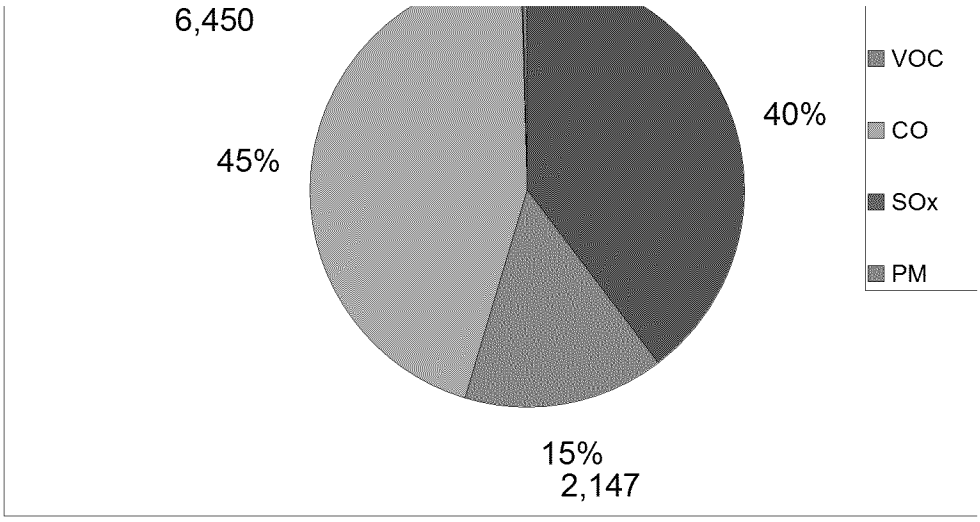

NOx
VOC
CO
SOx
PM


Powder River Basin Emissions (tons/yr)
21,086
12,873
26%
42%
14,367
29%
NOx
VOC
CO
SOx
PM




North San Juan Basin Emissions (tons/yr)
0%
5,700
NOx

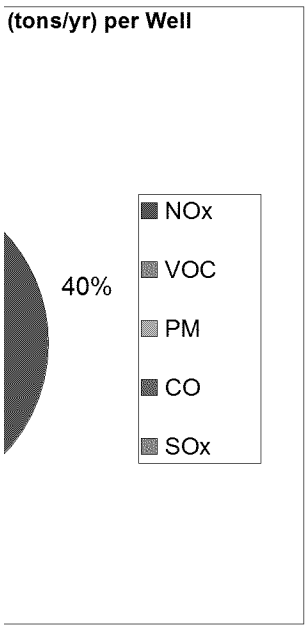


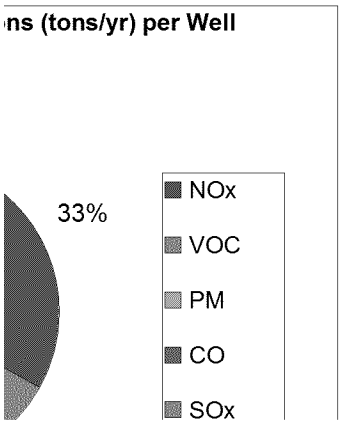


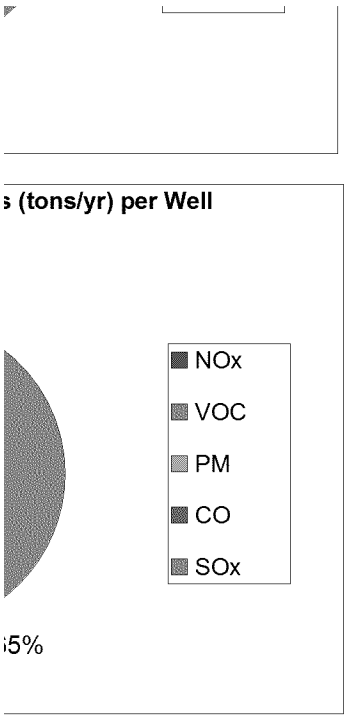
Gas Production (BillionCF)			Spud Counts
Total	CONV	CBM	Total
332	254	78	1069
444	29	415	127
1,020	520	500	919

y.html

% Gas Prod that is CBM
0%
23%
0%
94%
49%
86%






s (tons/yr) per Well
NOx
VOC
PM
CO
SOx
5%

WRAP Phase III 2006 Activity and Emission Estimates for the DJ, Uinta, Piceance, North San Juan and Sou

Basin	Well Count			Oil Production (bbl)			Gas Production (BillionCF)
	Total	CONV	CBM	Total	Oil Well Oil	Gas Well Condensate	Total
D-J Basin	19,841	19,841	0	14,242,088	0	14,242,088	235
Uinta Basin	6,881	6,018	863	11,528,121	9,758,247	1,769,874	332
Piceance Basin	6,315	6,255	60	7,158,305	5,755,076	1,403,229	421
North San Juan Basin	2,676	1,009	1,667	32,529	27,962	4,567	444
South San Juan Basin	20,649	16,486	4,163	2,636,811	1,002,060	1,634,751	1,020

Basin	Emissions (tons/yr)				
	NOx	VOC	CO	SOx	PM
D-J Basin	20,783	81,758	12,941	226	636
Uinta Basin	13,093	71,546	8,727	396	623
Piceance Basin	12,390	27,464	7,921	314	992
North San Juan Basin	835	69	321	1	10
South San Juan Basin	42,075	60,697	23,471	305	574

Pollutant by barrel of oil equivelant

Basin	Emissions (tons/yr)/total boe (million)				
	NOx	VOC	PM	CO	SOx
D-J Basin	373.08	1,467.63	11.41	232.31	4.06
Uinta Basin	186.58	1,019.57	8.88	124.36	5.64
Piceance Basin	151.80	336.47	12.16	97.05	3.85
North San Juan Basin	10.64	0.87	0.13	4.10	0.01
South San Juan Basin	230.05	331.86	3.14	128.33	1.67

Conversion fro

5658.53

D-J

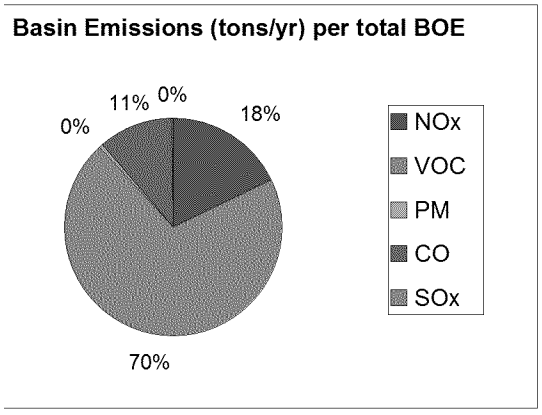
Uinta I

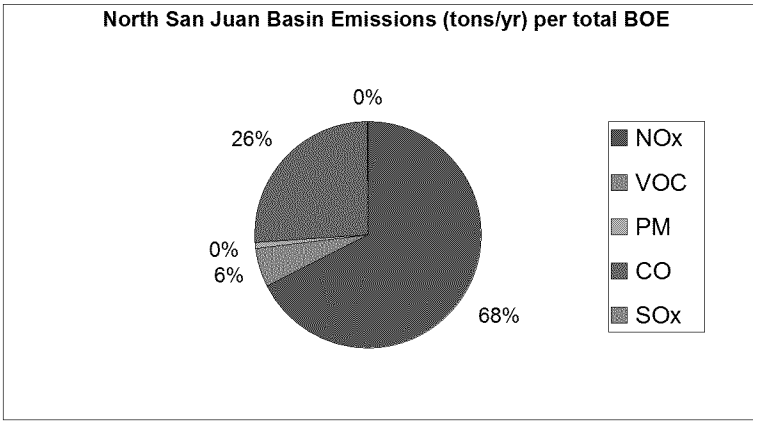
Picea

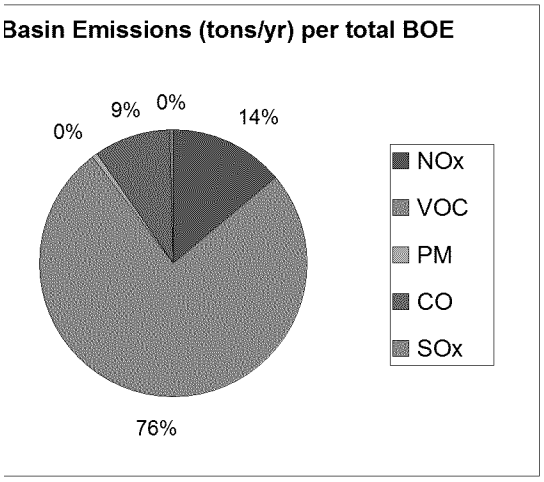
th San Juan Basins

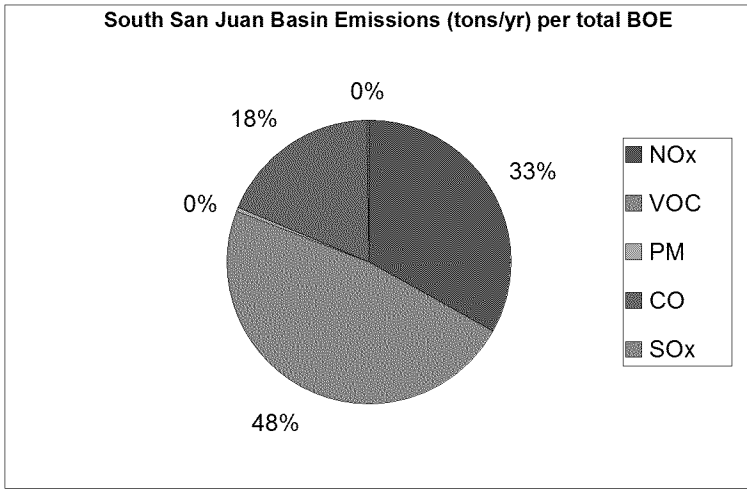
Gas Production (BillionCF)		Spud Counts		
CONV	CBM	Total	Total Barrel of Oil Equivalent	Total boe (million)
235	0	1500	55,707,058	55.71
254	78	1069	70,173,093	70.17
420	1	1186	81,622,639	81.62
29	415	127	78,467,829	78.47
520	500	919	182,898,266	182.90

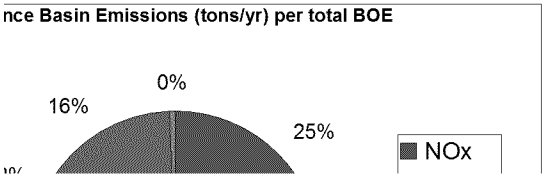
m cubic ft of natural gas to barrels of oil equivalent (boe)

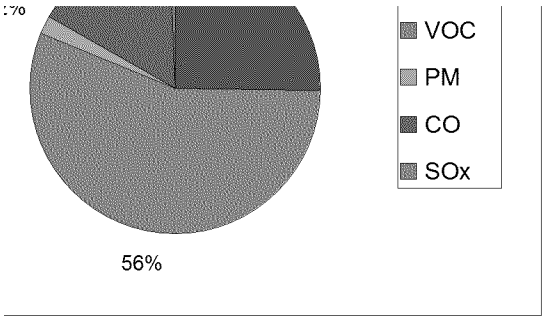











VOC
PM
CO
SOx
56%

WRAP Phase III 2015 Activity and Emission Estimates for the DJ, Uinta Basins, Piceance Basin, North San Juan Basin, South San Juan Basin, Wind River Basin, Powder River Basin, Southwest Wyoming Basin and Williston Basin

Basin	Well Count			Oil Production (bbl)			Gas Production (BCF)			Spud Counts	Total Barrel of Oil Equivalent	Total BOE (million)	%BOE = Oil	%BOE = Gas	%Gas = CBM
	Total	CONV	CBM	Total	Oil Well Oil	Gas Well Condensate	Total	CONV	CBM	Total					
D-J Basin	22,154	22,154	0	17,458,079	0	17,458,079	297	235	0	1,825	69,936,825	69.9	25%	75%	0%
Uinta Basin	10,890	9,896	994	20,290,294	14,084,968	6,205,326	504	430	74	1,533	109,376,894	109.4	19%	81%	15%
Piceance Basin	9,578	9,578	0	7,338,100	5,755,782	1,582,318	478	478	0	104	91,847,868	91.8	8%	92%	0%
North San Juan Basin	3,012	919	2,094	NA	NA	NA	304	21	284	207	53,784,444	53.8	0%	100%	93%
South San Juan Basin	23,119	17,570	5,550	2,535,740	972,851	1,562,889	977	506	472	600	175,254,950	175.3	1%	99%	48%
Wind River Basin	1,894	1,881	13	3,213,801	2,778,228	435,573	183	179	4	185	35,522,739	35.5	9%	91%	2%
Powder River Basin	30,894	7,674	23,220	20,215,372	19,738,724	476,648	881	57	824	2,611	175,884,366	175.9	11%	89%	94%
Southwest Wyoming Basin*	9,916	NA	NA	10,009,215	5,023,102	4,986,113	631	NA	NA	835	121,608,447	121.6	8%	92%	0%
Williston Basin	15,951	NA	NA	465,364,756	458,671,382	6,693,375	542	NA	NA	2,884	561,144,772	561.1	83%	17%	0%

Non-Sublette County Production Data

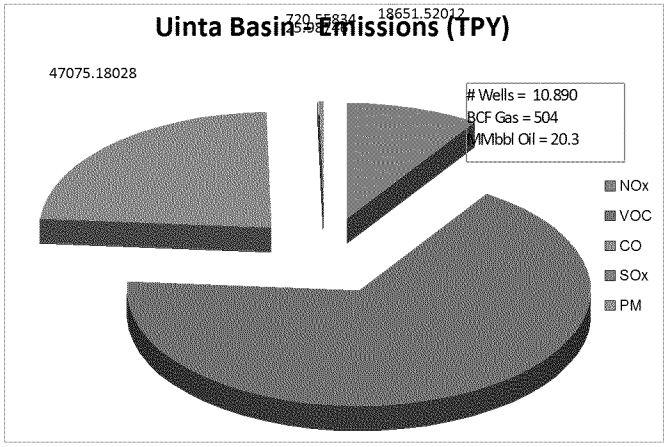
http://www.wrapair2.org/PhaseIII.aspx

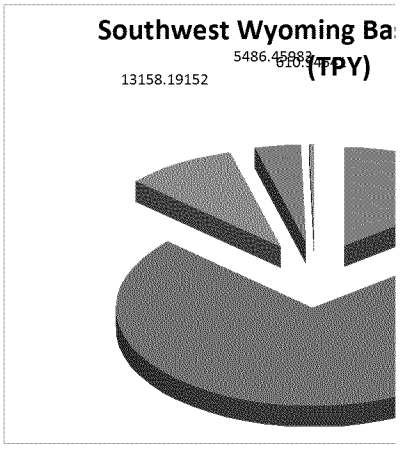
Conversion from cubic ft of natural gas to barrels of oil equivalent (boe)

5658.53 http://www.spe.org/industry/docs/UnitConversion.pdf

Basin	Emissions (tons/yr)				
	NOx	VOC	CO	SOx	PM
D-J Basin	24,408	88,989	15,412	131	771
Uinta Basin	18,652	134,543	47,075	26	721
Piceance Basin	9,951	20,962	7,668	77	374
North San Juan Basin	4,195	1,598	4,661	0	47
South San Juan Basin	43,050	55,705	25,421	132	523
Wind River Basin	1,758	12,480	2,738	1,618	39
Powder River Basin	23,149	17,779	21,630	558	686
Southwest Wyoming Basin	21,136	105,498	13,158	5,486	611
Williston Basin	46,114	454,443	76,480	7,046	2,596

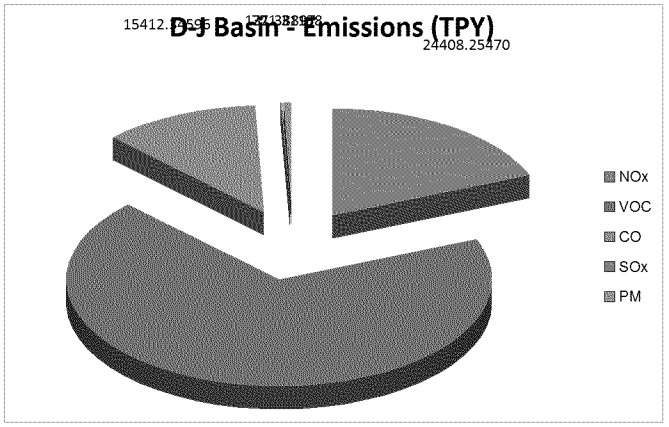
	Emissions were estimated for 2010
	Emissions were estimated for 2012
	Emissions were estimated for 2015

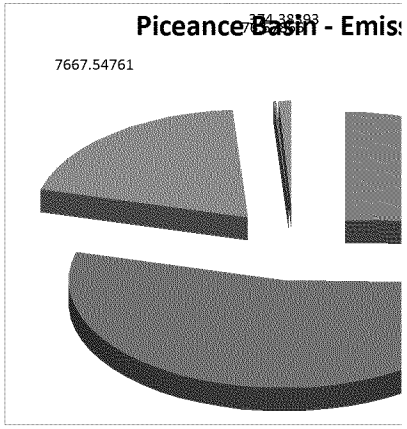




Pollutant by well

Basin	Emissions (tons/yr)/well				
	NOx	VOC	CO	SOx	PM
D-J Basin	1.1	4.0	0.7	0.0	0.0
Uinta Basin	1.7	12.4	4.3	0.0	0.1
Piceance Basin	1.0	2.2	0.8	0.0	0.0
North San Juan Basin	1.4	0.5	1.5	0.0	0.0
South San Juan Basin	1.9	2.4	1.1	0.0	0.0
Wind River Basin	0.9	6.6	1.4	0.9	0.0
Powder River Basin	0.7	0.6	0.7	0.0	0.0
Southwest Wyoming Basin	2.1	10.6	1.3	0.6	0.1
Williston Basin	2.9	28.5	4.8	0.4	0.2





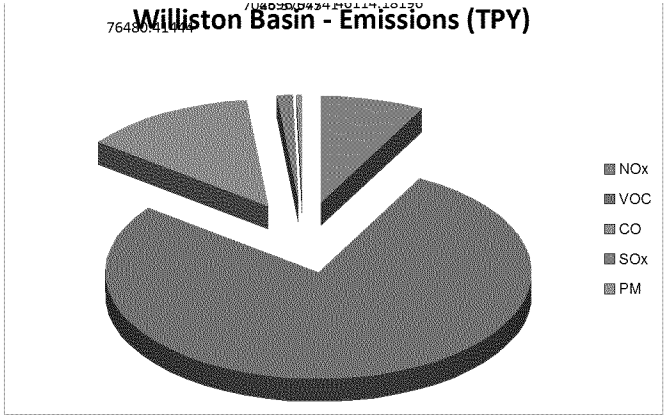
Pollutant by barrel of oil equivelant

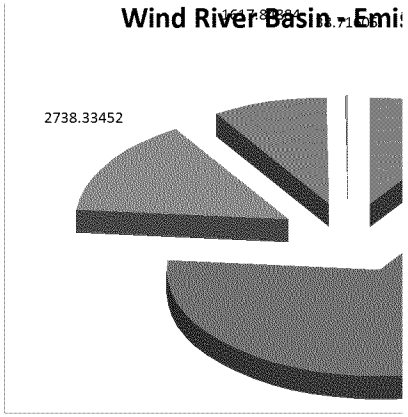
Basin	Emissions (tons/yr)/total boe (million)				
	NOx	VOC	CO	SOx	PM
D-J Basin	349	1,272	220	2	11
Uinta Basin	171	1,230	430	0	7
Piceance Basin	108	228	83	1	4
North San Juan Basin	78	30	87	0	1
South San Juan Basin	246	318	145	1	3
Wind River Basin	50	351	77	46	1
Powder River Basin	132	101	123	3	4
Southwest Wyoming Basin	174	868	108	45	5
Williston Basin	82	810	136	13	5

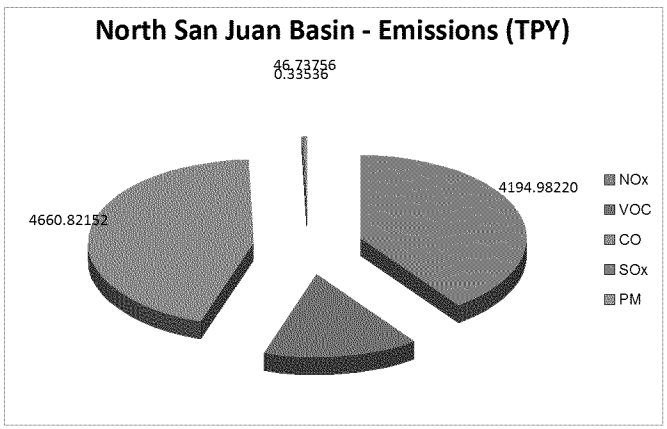
ce2be189-6d97-4b01-8c89-f1a9cfdad469

Wells per Million BOE

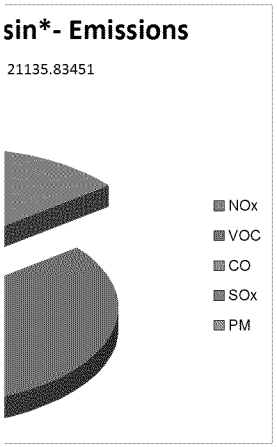
Basin	# Wells/Million BOE
D-J Basin	317
Uinta Basin	100
Piceance Basin	104
North San Juan Basin	56
South San Juan Basin	132
Wind River Basin	53
Powder River Basin	176
Southwest Wyoming Basin	82
Williston Basin	28

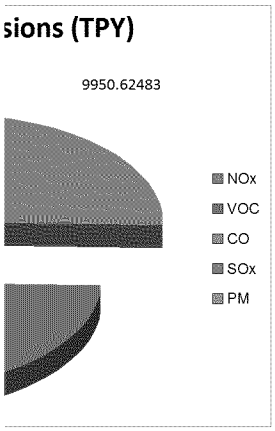


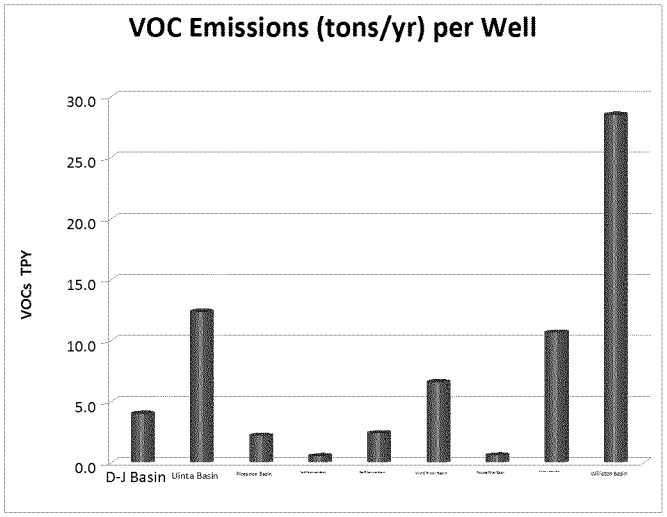


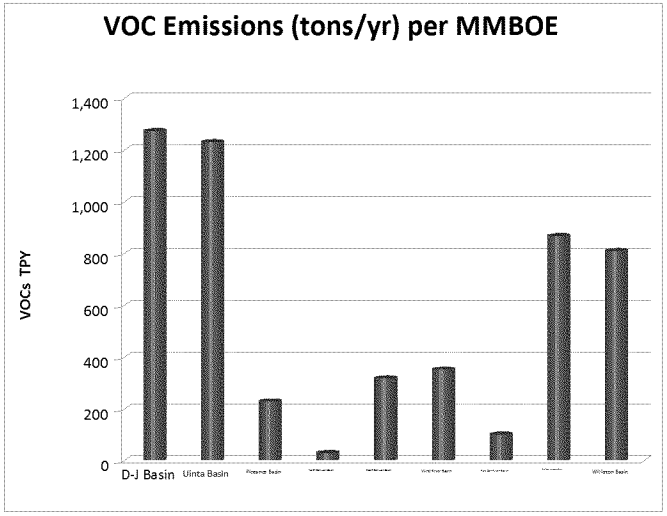


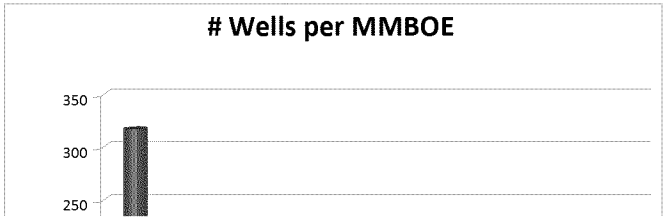
Gas Prod. Assoc. w/ Oil Wells (BCF)
62
0
0
0
0
0
0
631
542

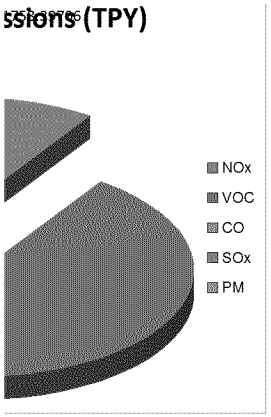


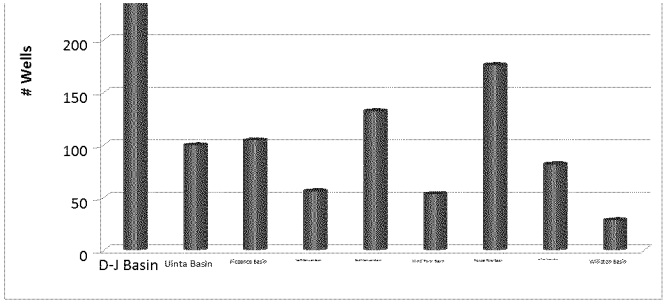









ssions (TPY)
NOx
VOC
CO
SOx
PM


Wells
200
150
100
50
0
D-J Basin
Uinta Basin

12479.69097

UINTA BASIN - WRAP PH.III

	2006 Emissions (tons/year)					2012 Emissions (tons/year)				
Description	**NOx**	**VOC**	**CO**	**SOx**	**PM10**	**NOx**	**VOC**	**CO**	**SOx**	**PM10**
Dehydrator	148	19,470	124	0	11	225	30,665	189	0	17
Pneumatic devices	0	14,916	0	0	0	0	25,083	0	0	0
Oil Tank	0	14,357	0	0	0	0	20,722	0	0	0
Pneumatic pumps	0	8,386	0	0	0	0	14,322	0	0	0
Condensate tank	0	6,195	0	0	0	0	21,719	0	0	0
Unpermitted Fugitives	0	1,910	0	0	0	0	3,212	0	0	0
Permitted Sources	2,339	1,320	927	5	32	3,184	4,355	2,517	8	48
Truck Loading of Oil	0	964	0	0	0	0	1,391	0	0	0
Venting - Compressor Startup	0	825	0	0	0	0	1,300	0	0	0
Venting - Compressor Shutdown	0	782	0	0	0	0	1,233	0	0	0
Artificial Lift	2,184	674	2,522	1	94	3,053	955	34,750	2	136
Compressor engines	2,207	510	2,318	0	31	3,169	695	4,236	0	46
Drill rigs	4,779	415	1,804	362	354	4,773	362	1,507	3	236
Venting - blowdowns	0	292	0	0	0	0	460	0	0	0
Venting - initial completions	0	241	0	0	0	0	332	0	0	0
Truck Loading of Condensate	0	127	0	0	0	0	445	0	0	0
Heaters	1,016	58	863	7	80	1,671	95	1,420	11	132
Miscellaneous engines	163	39	59	0	1	199	63	201	0	1
Venting - recompletions	0	37	0	0	0	0	51	0	0	0
Workover rigs	255	24	103	21	21	271	22	91	0	15
Gas Plant Truck Loading	0	3	0	0	0	0	12	0	0	0
Condensate tank flaring	1	0	3	0	0	2	0	9	0	0
Dehydrator Flaring	0	0	1	0	0	0	0	1	0	0
Initial completion Flaring	1	0	3	0	0	1	0	4	0	0
Total	**13,093**	**71,546**	**8,727**	**396**	**623**	**16,547**	**127,495**	**44,925**	**24**	**631**