



Produced Gas Isotope and Compositional Analyses

**Crestone Peak Resources Produced Gases
Colorado**

Crestone Peak Resources

June 17, 2019



PRODUCED GAS ISOTOPE ANALYSIS

Crestone Peak Resources Crestone Peak Resources Produced Gases, Colorado

Sample ID	Cylinder ID Number	COGCC ID	Sampling Date	Sampling Time	Shipment	Casing Pressure (psia)	Stable Carbon Isotopes										δD Methane (‰)	δ ¹³ C CO ₂ (‰)
							δ ¹³ C Methane (‰)	δ ¹³ C Ethane (‰)	δ ¹³ C Propane (‰)	δ ¹³ C i-Butane (‰)	δ ¹³ C n-Butane (‰)	δ ¹³ C i-Pentane (‰)	δ ¹³ C n-Pentane (‰)	δ ¹³ C Hexane (‰)	δ ¹³ C Heptane (‰)	δ ¹³ C Octane (‰)		
Billings 3B-18H - Production CSG		512336882	3/7/2019	11:30 AM	9th shipment		-52.4	-33.7	-28.6								-253	0.1
Billings 3B-18H - Surface CSG		512336882	3/7/2019	11:30 AM	9th shipment		-48.6	-35.2	-29.8	-32.3	-29.6						-268	-13.9
Boyd 3-19 - Production CSG		512336860	3/28/2019	12:35 PM	9th shipment		-51.2	-35.5	-30.1	-31.3	-28.9						-259	-0.7
Boyd 3-19 - Surface CSG		512336860	3/28/2019	12:35 PM	9th shipment		-48.5	-34.9	-29.9	-31.5	-28.9						-253	-18.4
Brown 41-5 - Production CSG		512336069	4/5/2019	9:00 AM	9th shipment		-49.8	-35.3	-29.5	-32.8	-29.9						-245	-2.1
Brown 41-5 - Surface CSG		512336069	4/5/2019	9:00 AM	9th shipment		-52.0	-33.2	-29.6	-32.4	-29.4						-248	-16.8
Bury Crandell 6-0-23 - Production CSG		501420712	4/1/2019	8:45 AM	9th shipment													-14.8
Bury Crandell 6-0-23 - Surface CSG		501420712	4/1/2019	8:45 AM	9th shipment		-52.3	-35.4	-31.1	-31.9	-29.5						-237	
Bury Crandell 42-23 - Production CSG		501420685	4/1/2019	8:00 AM	9th shipment		-49.2	-33.1	-28.8	-30.6	-27.9						-233	-0.8
Bury Crandell 42-23 - Surface CSG		501420685	4/1/2019	8:00 AM	9th shipment		-53.6	-33.0	-28.6	-30.7	-27.8						-246	-18.6
Caldwell 14-25 - Production CSG		501306512	4/3/2019	9:00 AM	9th shipment		-48.8	-33.4	-29.0	-30.9	-28.8						-236	-6.7
Caldwell 14-25 - Surface CSG		501306512	4/3/2019	9:00 AM	9th shipment		-54.9	-39.7	-32.5	-31.2	-29.8						-236	
Echeverria 0-2-2 - Production CSG		512331700	3/20/2019	11:30 AM	9th shipment													-16.4
Echeverria 0-2-2 - Surface CSG		512331700	3/20/2019	11:30 AM	9th shipment		-56.1	-35.1	-32.4	-34.3	-31.5						-276	-15.4
Echeverria 11-2 - Production CSG		512319854	3/22/2019	9:00 AM	9th shipment													-13.2
Echeverria 11-2 - Surface CSG		512319854	3/22/2019	9:00 AM	9th shipment		-57.5	-34.5	-30.8	-31.4	-30.4						-251	-12.3
Echeverria 12-2 - Production CSG		512320211	3/20/2019	8:30 AM	9th shipment		-48.1	-32.8	-28.8	-32.4	-29.4						-248	-14.9
Echeverria 12-2 - Surface CSG		512320211	3/20/2019	8:30 AM	9th shipment		-58.3	-34.4	-29.6	-31.9	-29.3						-264	-16.3
Echeverria 13-2 - Production CSG		512319943	3/25/2019	1:30 PM	9th shipment		-48.0	-33.6	-29.3	-31.5	-27.9						-245	-0.6
Echeverria 13-2 - Surface CSG		512319943	3/25/2019	1:30 PM	9th shipment													-16.9
Echeverria 21-2 - Production CSG		512319594	3/20/2019	12:30 PM	9th shipment		-49.2	-32.9	-28.9	-31.0	-28.1						-243	-0.2
Echeverria 21-2 - Surface CSG		512319594	3/20/2019	12:30 PM	9th shipment		-53.2	-35.0	-30.3	-32.4	-30.8						-226	
Echeverria 4-2-2 - Production CSG		512320445	3/20/2019	10:30 AM	9th shipment		-49.3	-33.3	-29.9	-31.4	-29.7						-245	-0.9
Echeverria 4-2-2 - Surface CSG		512320445	3/20/2019	10:30 AM	9th shipment		-56.3	-34.9	-31.4	-31.9	-29.8						-226	-17.4
Haley 41-20 - Production CSG		512336194	3/18/2019	12:00 PM	9th shipment													-14.8
Haley 41-20 - Surface CSG		512336194	3/18/2019	12:00 PM	9th shipment		-55.3	-34.0	-29.4	-31.7	-29.0						-254	-17.8
Hennen 1B-33H - Production CSG		512347728	4/4/2019	9:00 AM	9th shipment		-52.5	-35.8	-29.5	-31.7	-28.6						-240	-14.8
Hennen 1B-33H - Surface CSG		512347728	4/4/2019	9:00 AM	9th shipment		-51.3	-35.5	-30.0	-31.7	-29.0						-251	-14.7
Hennen 1G-33H - Surface CSG		512347730	4/4/2019	9:30 AM	9th shipment		-50.0	-33.5	-29.5	-32.3	-29.2						-247	-17.5
Hennen 1F-33H - Surface CSG		512347728	4/4/2019	10:30 AM	9th shipment		-50.2	-33.8	-29.5	-31.8	-28.7						-250	
Hennen 1G-33H - Surface CSG		512347731	4/4/2019	11:00 AM	9th shipment		-50.1	-33.4	-29.5	-32.1	-29.6						-258	-17.3
Hennen 1H-33H - Surface CSG		512347732	4/4/2019	11:30 AM	9th shipment		-49.4	-32.7	-29.7	-31.6	-29.3						-247	-16.4
Hennen 1G-33H - Surface CSG		512347726	4/4/2019	12:00 PM	9th shipment		-50.2	-33.6	-29.2	-31.6	-29.2						-246	-15.0
Hennen 1J-33H - Surface CSG		512347734	4/4/2019	12:30 PM	9th shipment		-49.7	-32.6	-28.5	-30.8	-29.3						-248	-16.4
Hwy 52 4B-32H - Production CSG		434579	3/25/2019	9:00 AM	9th shipment		-49.5	-33.9	-28.7	-32.3	-29.3						-250	0.8
Hwy 52 4B-32H - Surface CSG		434579	3/25/2019	9:00 AM	9th shipment		-49.2	-33.6	-30.5	-31.4	-28.6						-246	-2.0
Hwy 52 4C-32H - Braden Head		512338253	3/20/2019	10:05 AM	9th shipment		-49.8	-32.8	-28.4	-30.7	-27.8						-240	-17.6
Hwy 52 4C-32H - Production CSG		512338253	3/20/2019	10:10 AM	9th shipment		-49.3	-32.7	-30.8	-31.2	-27.3						-244	-1.0
Hwy 52 4E-32H - Braden Head		512338252	4/20/2019	10:40 AM	9th shipment		-49.6	-32.6	-29.5	-31.7	-28.9						-237	-5.4
Hwy 52 4E-32H - Production CSG		512338252	3/20/2019	11:00 AM	9th shipment		-48.4	-32.4	-28.8	-32.1	-29.4						-253	0.0
Hwy 52 4F-32H - Braden Head		512338245	3/20/2019	3:55 PM	9th shipment		-49.2	-33.6	-28.9	-31.6	-28.7						-239	-1.5
Hwy 52 4F-32H - Production CSG		512338245	3/20/2019	4:35 PM	9th shipment		-48.3	-34.5	-28.5	-31.2	-27.1						-256	-10.4
Hwy 52 4G-32H - Braden Head		512338249	3/20/2019	2:40 PM	9th shipment		-53.5	-30.2									-277	-17.9
Hwy 52 4G-32H - Production CSG		512338249	3/20/2019	2:50 PM	9th shipment		-49.5	-32.8	-28.2	-33.5	-28.4						-245	-8.4
Kiyota 4G-35H - Production CSG		512340103	3/22/2019	7:40 AM	9th shipment		-50.4	-32.9	-28.9								-254	0.1
Kiyota 4G-35H - Surface CSG		512340103	3/22/2019	7:40 AM	9th shipment		-48.9	-28.6	-28.4								-243	-16.1
Kiyota 4L-35H - Production CSG		512340164	3/22/2019	1:00 PM	9th shipment		-49.8	-32.8	-28.5	-25.6	-27.1						-242	-1.9
Kiyota 4L-35H - Surface CSG		512340164	3/22/2019	1:00 PM	9th shipment		-58.8	-32.6	-30.3								-249	-16.7
Kiyota 4M-35H - Production CSG		512345807	3/22/2019	7:50 AM	9th shipment		-48.3	-33.7	-28.7	-30.3	-27.6						-247	0.1
Kiyota 4M-35H - Surface CSG		512345807	3/22/2019	7:50 AM	9th shipment		-51.2	-31.5	-30.2	-31.3	-29.4						-249	-17.5
Kiyota 4N-35H - Production CSG		512345805	3/25/2019	8:00 AM	9th shipment		-49.5	-33.0	-28.1	-27.1	-27.7						-240	-0.7
Kiyota 4N-35H - Surface CSG		512345805	3/25/2019	8:00 AM	9th shipment		-48.5	-32.4	-29.2								-242	
Morgan Hills 1D-7H - CSG		512343236	3/25/2019	9:30 AM	9th shipment		-50.7										-236	-1.8
Morgan Hills 1E-7H - Production CSG		512343296	3/27/2019	9:55 AM	9th shipment		-49.0	-31.5									-234	-2.8
Morgan Hills 1E-7H - Surface CSG		512343296	3/27/2019	9:55 AM	9th shipment		-50.2	-33.4	-29.0								-247	
Morgan Hills 1H-7H - Production CSG		512343287	3/27/2019	10:00 AM	9th shipment		-50.8	-31.8									-232	-2.2
Pratt 12-29 - Production CSG		512338232	4/1/2019	11:00 AM	9th shipment		-47.7	-31.7	-28.1	-31.2	-28.0						-235	-0.5
Pratt 12-29 - Surface CSG		512338225	4/1/2019	11:00 AM	9th shipment		-55.2	-33.2	-29.7	-31.8	-29.3						-227	
Pratt 21-29 - Production CSG		420033	4/1/2019	1:00 PM	9th shipment		-46.9	-33.7	-28.9	-31.2	-28.1						-238	1.5
Pratt 21-29 - Surface CSG		420033	4/1/2019	1:00 PM	9th shipment		-53.4	-34.5	-30.3	-33.0	-29.6						-229	
Pratt 22-29 - Production CSG		512324344	4/1/2019	11:30 AM	9th shipment		-47.2	-33.1	-29.0	-31.8	-28.8						-240	-16.4
Pratt 22-29 - Surface CSG		512324344	4/1/2019	11:30 AM	9th shipment													-17.1
Pratt 4-2-29 - Production CSG		420035	4/1/2019	12:00 PM	9th shipment		-48.1	-32.1	-29.0	-32.0	-28.9						-240	-10.1
Pratt 4-2-29 - Surface CSG		420035	4/1/2019	12:00 PM	9th shipment		-50.6	-34.1	-29.8	-32.4	-29.5						-238	
Pratt 4F-29H - Production CSG		512338227	3/27/2019	2:30 PM	9th shipment		-47.0	-34.6	-29.1								-224	-5.6
Pratt 4G-29H - Production CSG		512338225	3/27/2019	2:40 PM	9th shipment		-49.5	-32.0									-239	-7.4
Rasmussen 0-4-19 - Production CSG		512332255	3/29/2019	9:00 AM	9th shipment		-49.2	-33.0	-28.7	-31.8	-28.3						-241	-1.3
Rasmussen 0-4-19 - Surface CSG		512332255	3/29/2019	8:00 AM	9th shipment		-55.2	-34.2	-29.3	-32.8	-28.8						-244	-18.6
Rasmussen 2-8-19 - Production CSG		512332258	3/29/2019	10:15 AM	9th shipment		-50.2	-32.8	-29.0	-32.9	-30.2						-249	-2.8
Rasmussen 2-8-19 - Surface CSG		512332258	3/29/2019	10:15 AM	9th shipment		-53.0	-34.1	-29.9	-32.1	-30.4						-241	-16.7
Rasmussen H Unit 1 - Production CSG		512312358	3/29/2019	8:00 AM	9th shipment		-49.1	-32.8	-28.8	-31.1	-28.3						-223	-5.4
Rasmussen H Unit 1 - Surface CSG		512312358	3/29/2019	8:00 AM	9th shipment													
Ray Nelson 33-32 - Production CSG		512330607	4/5/2019	10:30 AM	9th shipment		-49.0	-33.1	-29.1	-31.9	-28.8						-250	0.6
Ray Nelson 33-32 - Surface CSG																		



PRODUCED GAS ISOTOPE ANALYSIS

Crestone Peak Resources Crestone Peak Resources Produced Gases, Colorado

Sample ID	Cylinder ID Number	COGCC ID	Sampling Date	Sampling Time	Shipment	Casing Pressure (psia)	Gas Composition																	Specific Gravity (Air = 1.0)	
							He Conc. (mole %)	H2 Conc. (mole %)	O2+Ar Conc. (mole %)	N2 Conc. (mole %)	CO2 Conc. (mole %)	H2S Conc. (mole %)	CO Conc. (mole %)	C1 Conc. (mole %)	C2 Conc. (mole %)	C2H4 Conc. (mole %)	C3 Conc. (mole %)	C3H6 Conc. (mole %)	iC4 Conc. (mole %)	nC4 Conc. (mole %)	iC5 Conc. (mole %)	nC5 Conc. (mole %)	C6+ Conc. (mole %)		
Billings 3B-18H - Production CSG	512336982		3/7/2019	11:30 AM	9th shipment		0.00	0.95	0.74	3.80	0.61	0.00	0.11	90.34	3.43	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.592
Billings 3B-18H - Surface CSG	512336982		3/7/2019	11:30 AM	9th shipment		0.00	0.04	2.70	19.18	0.02	0.00	0.08	64.70	8.68	0.00	3.09	0.00	0.30	0.89	0.13	0.12	0.06	0.00	0.744
Boyd 3-19 - Production CSG	512336980		3/28/2019	12:35 PM	9th shipment		0.00	0.14	0.36	1.80	1.96	0.00	0.08	73.44	12.88	0.00	6.19	0.00	0.69	1.79	0.27	0.08	0.13	0.21	0.754
Boyd 3-19 - Surface CSG	512336980		3/28/2019	12:35 PM	9th shipment		0.00	0.93	0.80	3.59	0.01	0.00	0.08	59.60	17.26	0.00	11.47	0.00	1.40	3.31	0.57	0.57	0.42	0.864	
Brown 41-5 - Production CSG	512336909		4/5/2019	9:00 AM	9th shipment		0.00	0.13	1.17	4.94	1.40	0.00	0.09	72.29	11.54	0.00	5.35	0.00	0.69	1.58	0.30	0.30	0.22	0.752	
Brown 41-5 - Surface CSG	512336909		4/5/2019	9:00 AM	9th shipment		0.00	0.00	1.30	8.89	0.01	0.00	0.08	75.30	8.60	0.00	3.57	0.00	0.47	1.18	0.25	0.23	0.12	0.711	
Bury Candel 6-0-23 - Production CSG	501420712		4/1/2019	8:45 AM	9th shipment		0.00	0.00	20.63	79.32	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.996	
Bury Candel 6-0-23 - Surface CSG	501420712		4/1/2019	8:45 AM	9th shipment		0.00	0.04	1.27	6.56	0.01	0.00	0.09	76.30	6.70	0.00	5.73	0.00	0.81	1.68	0.36	0.30	0.16	0.729	
Bury Candel 42-23 - Production CSG	501420685		4/1/2019	8:00 AM	9th shipment		0.00	0.02	0.85	3.19	1.80	0.00	0.08	72.96	17.57	0.00	3.26	0.00	0.12	0.13	0.01	0.00	0.00	0.710	
Bury Candel 42-23 - Surface CSG	501420685		4/1/2019	8:00 AM	9th shipment		0.00	0.19	0.49	2.55	0.58	0.00	0.11	89.21	6.11	0.00	0.70	0.00	0.02	0.02	0.00	0.01	0.01	0.810	
Caldwell 14-25 - Production CSG	501306512		4/3/2019	9:00 AM	9th shipment		0.00	0.75	0.76	3.16	0.60	0.00	11.42	63.47	12.04	0.00	5.49	0.00	0.65	1.20	0.15	0.12	0.19	0.769	
Caldwell 14-25 - Surface CSG	501306512		4/3/2019	9:00 AM	9th shipment		0.00	0.00	0.47	3.91	0.00	0.00	0.10	79.99	7.63	0.00	5.48	0.00	0.00	1.52	0.32	0.33	0.24	0.704	
Echewenta 0-2-2 - Production CSG	512331700		3/20/2019	11:30 AM	9th shipment		0.00	0.00	20.64	79.30	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.996	
Echewenta 0-2-2 - Surface CSG	512331700		3/20/2019	11:30 AM	9th shipment		0.00	0.02	0.51	5.44	0.01	0.00	0.10	81.30	4.44	0.00	4.77	0.00	0.91	1.45	0.38	0.36	0.31	0.704	
Echewenta 11-2 - Production CSG	512319854		3/22/2019	9:00 AM	9th shipment		0.00	0.00	20.63	79.25	0.08	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.996	
Echewenta 11-2 - Surface CSG	512319854		3/22/2019	9:00 AM	9th shipment		0.00	0.00	1.05	7.72	0.01	0.00	0.08	79.95	4.68	0.00	4.31	0.00	0.83	0.94	0.20	0.15	0.08	0.691	
Echewenta 12-2 - Production CSG	512320211		3/20/2019	8:30 AM	9th shipment		0.00	0.01	18.86	79.42	0.07	0.00	0.01	3.67	0.99	0.00	0.16	0.00	0.02	0.06	0.02	0.05	0.05	0.962	
Echewenta 12-2 - Surface CSG	512320211		3/20/2019	8:30 AM	9th shipment		0.00	0.00	12.30	71.19	0.06	0.00	0.02	32.37	1.52	0.00	0.97	0.00	0.19	0.20	0.05	0.05	0.07	0.864	
Echewenta 13-2 - Production CSG	512319943		3/25/2019	1:30 PM	9th shipment		0.00	0.03	0.60	2.54	1.73	0.00	0.10	74.25	13.13	0.00	5.45	0.00	0.62	1.25	0.16	0.12	0.02	0.734	
Echewenta 13-2 - Surface CSG	512319943		3/25/2019	1:30 PM	9th shipment		0.00	0.00	20.63	79.31	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.996	
Echewenta 21-2 - Production CSG	512319594		3/20/2019	12:30 PM	9th shipment		0.00	0.04	6.64	25.63	1.39	0.00	0.06	47.71	9.53	0.00	4.90	0.00	0.88	2.23	0.54	0.52	0.01	0.868	
Echewenta 21-2 - Surface CSG	512319594		3/20/2019	12:30 PM	9th shipment		0.00	0.00	0.38	5.60	0.00	0.00	0.12	81.82	4.17	0.00	4.68	0.00	0.93	1.36	0.34	0.31	0.28	0.698	
Echewenta 4-2-2 - Production CSG	512324145		3/20/2019	10:30 AM	9th shipment		0.00	0.12	1.65	6.55	1.57	0.00	0.08	67.95	12.31	0.00	5.96	0.00	0.88	2.24	0.37	0.30	0.02	0.761	
Echewenta 4-2-2 - Surface CSG	512324145		3/20/2019	10:30 AM	9th shipment		0.00	0.00	0.52	5.93	0.01	0.00	0.08	81.54	4.25	0.00	4.51	0.00	0.86	1.34	0.34	0.31	0.32	0.698	
Haley 41-20 - Production CSG	512336194		3/18/2019	12:00 PM	9th shipment		0.00	0.00	20.63	79.28	0.08	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.996	
Haley 41-20 - Surface CSG	512336194		3/18/2019	12:00 PM	9th shipment		0.00	0.03	0.34	4.44	0.01	0.00	0.09	84.32	5.60	0.00	3.49	0.00	0.41	0.77	0.18	0.17	0.15	0.863	
Hemen 1B-33H - Production CSG	512347728		4/4/2019	9:00 AM	9th shipment		0.00	0.01	19.80	76.20	0.08	0.00	0.00	0.34	0.43	0.00	0.11	0.00	0.02	0.01	0.00	0.00	0.00	0.854	
Hemen 1B-33H - Surface CSG	512347728		4/4/2019	9:00 AM	9th shipment		0.00	0.74	18.13	69.87	0.08	0.00	0.00	8.77	1.79	0.00	0.52	0.00	0.04	0.05	0.00	0.00	0.01	0.955	
Hemen 1D-33H - Production CSG	512347734		4/4/2019	9:00 AM	9th shipment		0.00	43.46	1.12	6.27	0.01	0.00	0.06	45.00	3.14	0.00	0.81	0.00	0.06	0.05	0.00	0.00	0.01	0.401	
Hemen 1D-33H - Surface CSG	512347734		4/4/2019	10:30 AM	9th shipment		0.00	0.48	18.03	69.54	0.08	0.00	0.00	5.12	0.55	0.00	0.18	0.00	0.01	0.01	0.00	0.00	0.01	0.955	
Hemen 1G-33H - Surface CSG	512347731		4/4/2019	11:00 AM	9th shipment		0.00	14.61	1.58	7.46	0.01	0.00	0.07	62.99	8.86	0.00	3.38	0.00	0.32	0.59	0.07	0.05	0.01	0.814	
Hemen 1H-33H - Surface CSG	512347732		4/4/2019	11:30 AM	9th shipment		0.00	78.23	3.05	12.80	0.01	0.00	0.00	5.50	0.31	0.00	0.07	0.00	0.01	0.01	0.00	0.00	0.00	0.247	
Hemen 1H-33H - Surface CSG	512347732		4/4/2019	12:30 PM	9th shipment		0.00	14.61	1.58	7.46	0.01	0.00	0.07	62.99	8.86	0.00	3.38	0.00	0.32	0.59	0.07	0.05	0.01	0.814	
Hemen 1J-33H - Surface CSG	512347734		4/4/2019	12:30 PM	9th shipment		0.00	66.63	0.78	4.34	0.01	0.00	0.03	25.95	1.91	0.00	0.31	0.00	0.02	0.02	0.00	0.00	0.00	0.267	
Hay 52 4B-32H - Production CSG	434579		3/25/2019	9:00 AM	9th shipment		0.00	0.07	0.43	2.32	1.02	0.00	0.10	89.42	5.99	0.00	0.61	0.00	0.01	0.01	0.00	0.00	0.00	0.611	
Hay 52 4B-32H - Surface CSG	434579		3/25/2019	9:00 AM	9th shipment		0.00	0.02	0.50	2.21	0.98	0.00	0.08	65.79	16.42	0.00	11.08	0.00	0.00	2.40	0.27	0.19	0.06	0.808	
Hay 52 4C-32H - Braden Head	512338253		3/20/2019	10:00 AM	9th shipment		0.00	0.00	1.56	4.59	0.01	0.00	0.09	73.86	14.84	0.00	2.98	0.00	0.17	0.02	0.02	0.02	0.06	0.862	
HWY 52 4C-32H - Production CSG	512338253		3/20/2019	10:05 AM	9th shipment		0.00	0.21	0.44	2.19	0.51	0.00	0.10	87.94	7.51	0.00	1.04	0.00	0.03	0.02	0.00	0.00	0.00	0.617	
HWY 52 4E-32H - Braden Head	512338252		4/20/2019	10:40 AM	9th shipment		0.00	0.05	2.22	36.40	0.01	0.00	0.07	61.81	3.72	0.00	1.31	0.00	0.13	0.22	0.03	0.02	0.02	0.729	
Hay 52 4E-32H - Production CSG	512338252		3/20/2019	11:00 AM	9th shipment		0.00	0.00	1.56	4.59	0.01	0.00	0.09	73.86	14.84	0.00	2.98	0.00	0.17	0.02	0.02	0.02	0.06	0.862	
Hay 52 4F-32H - Braden Head	512338245		3/20/2019	3:55 PM	9th shipment		0.00	0.02	0.85	3.19	1.80	0.00	0.08	72.96	17.57	0.00	3.26	0.00	0.12	0.13	0.01	0.00	0.00	0.710	
Hay 52 4F-32H - Production CSG	512338245		3/20/2019	4:35 PM	9th shipment		0.00	0.19	0.40	2.55	0.58	0.00	0.11	89.21	6.11	0.00	0.70	0.00	0.02	0.02	0.00	0.00	0.01	0.810	
HWY 52 4G-32H - Braden Head	512338249		3/20/2019	2:50 PM	9th shipment		0.00	0.00	1.55	8.82	0.01	0.00	0.10	89.38	6.61	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.804	
HWY 52 4G-32H - Production CSG	512338249		3/20/2019	2:50 PM	9th shipment		0.0																		



PRODUCED GAS ISOTOPE ANALYSIS

Crestone Peak Resources Crestone Peak Resources Produced Gases, Colorado

Sample ID	Cylinder ID Number	COGCC ID	Sampling Date	Sampling Time	Shipment	Casing Pressure (psia)	Hydrocarbon Gas Composition							C6+ Conc. (mole %)
							C1 Conc. (mole %)	C2 Conc. (mole %)	C3 Conc. (mole %)	iC4 Conc. (mole %)	nC4 Conc. (mole %)	iC5 Conc. (mole %)	nC5 Conc. (mole %)	
Billings 3B-18H - Production CSG		512336882	3/7/2019	11:30 AM	9th shipment		96.32	3.66	0.02	0.00	0.00	0.00	0.00	0.00
Billings 3B-18H - Surface CSG		512336882	3/7/2019	11:30 AM	9th shipment		82.98	11.13	3.97	0.39	1.14	0.17	0.16	0.08
Boyd 3-19 - Production CSG		512336880	3/28/2019	12:35 PM	9th shipment		76.77	13.46	6.47	0.72	1.87	0.28	0.30	0.13
Boyd 3-19 - Surface CSG		512336880	3/28/2019	12:35 PM	9th shipment		63.00	18.25	12.13	1.48	3.50	0.60	0.61	0.44
Brown 41-5 - Production CSG		512336009	4/5/2019	8:00 AM	9th shipment		78.35	12.50	5.79	0.75	1.71	0.33	0.33	0.24
Brown 41-5 - Surface CSG		512336009	4/5/2019	8:00 AM	9th shipment		83.93	9.58	3.98	0.52	1.32	0.28	0.25	0.13
Bury Crandell 6-0-23 - Production CSG		501420712	4/1/2019	8:45 AM	9th shipment		86.84	13.16	0.00	0.00	0.00	0.00	0.00	0.00
Bury Crandell 6-0-23 - Surface CSG		501420712	4/1/2019	8:45 AM	9th shipment		82.90	7.27	6.22	0.88	1.83	0.39	0.32	0.18
Bury Crandell 42-23 - Production CSG		501420685	4/1/2019	8:00 AM	9th shipment		77.57	18.68	3.47	0.13	0.13	0.01	0.00	0.01
Bury Crandell 42-23 - Surface CSG		501420685	4/1/2019	8:00 AM	9th shipment		92.96	6.36	0.73	0.02	0.02	0.00	0.00	0.01
Caldwell 14-25 - Production CSG		501306512	4/3/2019	8:00 AM	9th shipment		76.19	14.46	6.60	0.78	1.44	0.18	0.15	0.22
Caldwell 14-25 - Surface CSG		501306512	4/3/2019	8:00 AM	9th shipment		83.75	7.99	5.73	0.00	1.59	0.34	0.35	0.25
Echeverria 0-2-2 - Production CSG		512331700	3/20/2019	11:30 AM	9th shipment		77.66	3.05	5.84	2.79	4.82	2.03	2.79	0.02
Echeverria 0-2-2 - Surface CSG		512331700	3/20/2019	11:30 AM	9th shipment		86.56	4.73	5.07	0.96	1.55	0.40	0.39	0.33
Echeverria 11-2 - Production CSG		512319854	3/22/2019	9:00 AM	9th shipment		33.97	1.95	6.57	2.82	5.96	4.51	6.57	37.65
Echeverria 11-2 - Surface CSG		512319854	3/22/2019	9:00 AM	9th shipment		87.72	5.14	4.73	0.91	1.03	0.22	0.17	0.08
Echeverria 13-2 - Production CSG		512320211	3/20/2019	8:30 AM	9th shipment		80.00	12.92	3.56	0.48	1.20	0.37	0.46	1.02
Echeverria 13-2 - Surface CSG		512320211	3/20/2019	8:30 AM	9th shipment		91.37	4.30	2.75	0.53	0.56	0.15	0.13	0.21
Echeverria 13-2 - Production CSG		512319943	3/25/2019	1:30 PM	9th shipment		78.16	13.82	5.74	0.65	1.32	0.17	0.12	0.02
Echeverria 13-2 - Surface CSG		512319943	3/25/2019	1:30 PM	9th shipment		91.30	8.70	0.00	0.00	0.00	0.00	0.00	0.00
Echeverria 21-2 - Production CSG		512319594	3/20/2019	12:30 PM	9th shipment		72.03	14.38	7.39	1.21	3.36	0.82	0.79	0.02
Echeverria 21-2 - Surface CSG		512319594	3/20/2019	12:30 PM	9th shipment		87.14	4.44	4.98	0.99	1.45	0.37	0.33	0.29
Echeverria 4-2-2 - Production CSG		412320445	3/20/2019	10:30 AM	9th shipment		75.47	13.67	6.62	0.98	2.49	0.41	0.33	0.02
Echeverria 4-2-2 - Surface CSG		412320445	3/20/2019	10:30 AM	9th shipment		87.25	4.55	4.82	0.92	1.43	0.36	0.33	0.34
Haley 41-20 - Production CSG		512338194	3/18/2019	12:00 PM	9th shipment		40.17	4.49	4.49	2.81	2.81	1.69	3.37	40.17
Haley 41-20 - Surface CSG		512338194	3/18/2019	12:00 PM	9th shipment		88.66	5.89	3.67	0.43	0.81	0.19	0.17	0.16
Hermen 1B-33H - Production CSG		512347728	4/4/2019	9:30 AM	9th shipment		85.17	10.90	3.76	0.28	0.58	0.10	0.11	0.11
Hermen 1B-33H - Surface CSG		512347728	4/4/2019	9:30 AM	9th shipment		78.37	16.04	4.66	0.37	0.44	0.03	0.02	0.06
Hermen 1D-33H - Production CSG		512347730	4/4/2019	9:30 AM	9th shipment		91.68	6.41	1.86	0.11	0.10	0.01	0.00	0.03
Hermen 1F-33H - Surface CSG		512347729	4/4/2019	9:30 AM	9th shipment		87.19	5.33	3.01	0.25	0.20	0.01	0.00	0.02
Hermen 1G-33H - Surface CSG		512347731	4/4/2019	11:00 AM	9th shipment		82.58	11.63	4.43	0.42	0.77	0.09	0.06	0.01
Hermen 1H-33H - Surface CSG		512347732	4/4/2019	11:30 AM	9th shipment		93.13	5.31	1.25	0.13	0.11	0.02	0.02	0.04
Hermen 1B-33H - Surface CSG		512347726	4/4/2019	9:30 AM	9th shipment		81.26	7.14	1.15	0.07	0.04	0.00	0.00	0.01
Hermen 1J-33H - Surface CSG		512347734	4/4/2019	12:30 PM	9th shipment		91.96	6.79	1.10	0.07	0.06	0.00	0.01	0.01
Hwy 52 4B-32H - Production CSG		434579	3/25/2019	9:00 AM	9th shipment		93.09	6.24	0.63	0.01	0.01	0.00	0.00	0.00
Hwy 52 4C-32H - Surface CSG		434579	3/25/2019	9:00 AM	9th shipment		68.38	17.06	11.52	0.00	2.50	0.28	0.19	0.06
Hwy 52 4C-32H - Braden Head		512338253	3/20/2019	10:09 AM	9th shipment		80.17	16.09	3.24	0.19	0.24	0.02	0.02	0.02
Hwy 52 4C-32H - Production CSG		512338253	3/20/2019	10:10 AM	9th shipment		90.10	7.78	1.07	0.03	0.02	0.00	0.00	0.00
Hwy 52 4E-32H - Braden Head		512338252	4/20/2019	10:40 AM	9th shipment		91.91	5.53	1.95	0.19	0.33	0.04	0.04	0.02
Hwy 52 4E-32H - Production CSG		512338252	3/20/2019	11:00 AM	9th shipment		89.27	10.10	2.24	0.19	0.19	0.01	0.01	0.01
Hwy 52 4F-32H - Braden Head		512338245	3/20/2019	3:55 PM	9th shipment		77.57	18.68	3.47	0.13	0.13	0.01	0.00	0.01
Hwy 52 4F-32H - Production CSG		512338245	3/20/2019	4:35 PM	9th shipment		92.86	6.36	0.73	0.02	0.02	0.00	0.00	0.01
Hwy 52 4G-32H - Braden Head		512338249	3/20/2019	2:40 PM	9th shipment		89.85	6.12	0.02	0.00	0.00	0.00	0.00	0.00
Hwy 52 4G-32H - Production CSG		512338249	3/20/2019	2:50 PM	9th shipment		92.47	6.91	0.59	0.01	0.01	0.00	0.00	0.01
Kiyota 4G-35H - Production CSG		512340103	3/22/2019	7:40 AM	9th shipment		93.46	6.15	0.38	0.00	0.00	0.00	0.00	0.00
Kiyota 4G-35H - Surface CSG		512340103	3/22/2019	7:40 AM	9th shipment		99.59	0.36	0.02	0.00	0.01	0.00	0.00	0.01
Kiyota 4L-35H - Production CSG		512340164	3/22/2019	1:00 PM	9th shipment		90.57	6.13	1.24	0.04	0.02	0.00	0.00	0.01
Kiyota 4L-35H - Surface CSG		512340164	3/22/2019	1:00 PM	9th shipment		98.77	1.21	0.01	0.00	0.00	0.00	0.00	0.00
Kiyota 4M-35H - Production CSG		512345807	3/22/2019	7:50 AM	9th shipment		90.46	8.21	1.27	0.04	0.03	0.00	0.00	0.00
Kiyota 4M-35H - Surface CSG		512345807	3/22/2019	7:50 AM	9th shipment		95.76	1.17	0.04	0.01	0.00	0.00	0.00	0.01
Kiyota 4N-35H - Production CSG		512345805	3/25/2019	8:00 AM	9th shipment		92.49	6.93	0.56	0.01	0.00	0.00	0.00	0.01
Kiyota 4N-35H - Surface CSG		512345805	3/25/2019	8:00 AM	9th shipment		98.15	0.81	0.02	0.00	0.00	0.00	0.00	0.01
Morgan Hills 1D-7H - CSG		512343296	3/25/2019	9:30 AM	9th shipment		91.89	5.88	0.00	0.00	0.00	0.00	0.00	0.00
Morgan Hills 1E-7H - Production CSG		512343296	3/27/2019	9:55 AM	9th shipment		96.94	3.06	0.00	0.00	0.00	0.00	0.00	0.00
Morgan Hills 1E-7H - Surface CSG		512343296	3/27/2019	9:55 AM	9th shipment		91.11	7.77	1.11	0.00	0.00	0.00	0.00	0.00
Morgan Hills 1H-7H - Production CSG		512343297	3/27/2019	10:00 AM	9th shipment		99.38	0.61	0.00	0.00	0.00	0.00	0.00	0.00
Pratt 12-29 - Production CSG		512338225	4/1/2019	11:00 AM	9th shipment		81.92	10.68	4.12	0.56	1.26	0.38	0.46	0.62
Pratt 12-29 - Surface CSG		512338225	4/1/2019	11:00 AM	9th shipment		86.77	7.25	3.89	0.58	0.83	0.21	0.19	0.28
Pratt 21-29 - Production CSG		420033	4/1/2019	1:00 PM	9th shipment		78.62	12.75	5.12	0.72	1.32	0.24	0.18	0.05
Pratt 21-29 - Surface CSG		420033	4/1/2019	1:00 PM	9th shipment		85.98	7.14	4.35	0.59	1.18	0.27	0.26	0.23
Pratt 22-29 - Production CSG		512332434	4/1/2019	11:30 AM	9th shipment		26.77	12.70	10.80	4.05	15.74	10.09	12.13	7.72
Pratt 22-29 - Surface CSG		512332434	4/1/2019	11:30 AM	9th shipment		7.24	6.56	7.47	1.81	8.82	4.07	4.07	59.95
Pratt 4-2-29 - Production CSG		420035	4/1/2019	12:00 PM	9th shipment		79.28	11.90	5.47	0.81	2.03	0.49	0.00	0.00
Pratt 4-2-29 - Surface CSG		420035	4/1/2019	12:00 PM	9th shipment		82.10	10.69	4.90	0.57	1.16	0.22	0.22	0.16
Pratt 4F-29H - Production CSG		512338227	3/27/2019	2:30 PM	9th shipment		95.37	4.45	0.17	0.00	0.00	0.00	0.00	0.00
Pratt 4G-29H - Production CSG		512338225	3/27/2019	2:40 PM	9th shipment		99.22	0.77	0.00	0.00	0.00	0.00	0.00	0.00
Rasmussen 0-4-19 - Production CSG		512332255	3/29/2019	9:00 AM	9th shipment		78.86	12.74	5.18	0.67	1.55	0.34	0.38	0.28
Rasmussen 0-4-19 - Surface CSG		512332255	3/29/2019	9:00 AM	9th shipment		79.14	8.54	7.14	1.22	2.54	0.50	0.48	0.45
Rasmussen 2-8-19 - Production CSG		512332258	3/29/2019	10:15 AM	9th shipment		75.55	14.30	6.11	0.83	1.97	0.43	0.46	0.35
Rasmussen 2-8-19 - Surface CSG		512332258	3/29/2019	10:15 AM	9th shipment		70.58	14.24	9.53	1.26	2.74	0.49	0.49	0.54
Rasmussen H Unit 1 - Production CSG		512312358	3/29/2019	8:00 AM	9th shipment		81.12	12.75	4.69	0.51	0.72	0.07	0.05	0.09
Rasmussen H Unit 1 - Surface CSG		512312358	3/29/2019	8:00 AM	9th shipment		100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ray Nelson 33-32 - Production CSG		512330607	4/5/2019	10:30 AM	9th shipment		80.44	11.78	4.67	0.35	0.67	0.16	0.37	0.43
Ray Nelson 33-32 - Surface CSG		512330607	4/5/2019	10:30 AM	9th shipment		77.63	13.11	5.72	0.79	1.79	0.26	0.37	0.34
Ray Nelson 34-32 - Production CSG		512330611	4/5/2019	10:00 AM	9th shipment		69.75	19.09	9.09	1.23	0.00	0.51	0.28	0.05
Ray Nelson 34-32 - Surface CSG		512330611	4/5/2019	10:00 AM	9th shipment		84.89	8.67	3.84	0.67	1.26	0.43	0.42	0.22
Ray Nelson 4-8-32 - Production CSG		512330728	4/5/2019	8:30 AM	9th shipment		83.88	6.27	4.21	0.83	1.39	0.36	0.70	0.36
Ray Nelson 8-8-32 - Production CSG		512330728	4/5/2019	8:30 AM	9th shipment		85.54	9.41	3.42	0.40	0.81	0.14	0.13	0.14
Ray Nelson 8-8-32 - Surface CSG		512330728	4/5/2019	8:30 AM	9th shipment		80.25	12.23	5.04	0.59	1.32	0.23	0.22	



PRODUCED GAS ISOTOPE ANALYSIS

Crestone Peak Resources Crestone Peak Resources Produced Gases, Colorado

Sample ID	Cylinder ID Number	COGCC ID	Sampling Date	Sampling Time	Shipment	Casing Pressure (psia)	BTU Content		Calculated Ratios		Wetness (C2 + C5) / (C1 + C5)	C1/C2 Ratio (mole/mole)	iC4/iC4 Ratio (mole/mole)
							Total Gas (BTU/LBS)	Hydrocar. Gas (BTU/LBS)	Total HC Gas (Btu by mole)				
Billings 3B-18H - Production CSG		512336982	3/7/2019	11:30 AM	9th shipment		974	1,038	937,884	3.68	26	0.00	
Billings 3B-18H - Surface CSG		512336982	3/7/2019	11:30 AM	9th shipment		937	1,201	779,777	16.96	7	0.34	
Boyd 3-19 - Production CSG		512336860	3/28/2019	12:35 PM	9th shipment		1,234	1,290	956,701	23.13	6	0.38	
Boyd 3-19 - Surface CSG		512336860	3/28/2019	12:35 PM	9th shipment		1,415	1,496	945,994	36.72	3	0.42	
Brown 41-5 - Production CSG		512336009	4/5/2019	9:00 AM	9th shipment		1,178	1,276	922,695	21.46	6	0.44	
Brown 41-5 - Surface CSG		512336009	4/5/2019	9:00 AM	9th shipment		1,081	1,205	897,154	15.96	9	0.40	
Bury Crandell 6-0-23 - Production CSG		501420712	4/1/2019	8:45 AM	9th shipment		0	1,110	11	13.16	7	#DIV/0!	
Bury Crandell 6-0-23 - Surface CSG		501420685	4/1/2019	8:00 AM	9th shipment		1,139	1,248	920,434	16.96	11	0.48	
Bury Crandell 42-23 - Production CSG		501420685	4/1/2019	8:00 AM	9th shipment		1,139	1,211	940,542	22.42	4	0.99	
Bury Crandell 42-23 - Surface CSG		501420685	4/1/2019	8:00 AM	9th shipment		1,029	1,071	960,753	7.13	15	1.15	
Caldwell 14-25 - Production CSG		501306512	4/3/2019	9:00 AM	9th shipment		1,072	1,287	833,139	23.64	5	0.54	
Caldwell 14-25 - Surface CSG		501306512	4/3/2019	9:00 AM	9th shipment		1,168	1,223	955,130	16.04	10	0.00	
Echeverria 0-2-2 - Production CSG		512331700	3/20/2019	11:30 AM	9th shipment		0	3,348	39	43.52	9	0.58	
Echeverria 0-2-2 - Surface CSG		512331700	3/20/2019	11:30 AM	9th shipment		1,141	1,215	939,210	13.15	18	0.62	
Echeverria 11-2 - Production CSG		512319854	3/22/2019	9:00 AM	9th shipment		1	3,064	277	45.51	17	0.47	
Echeverria 11-2 - Surface CSG		512319854	3/22/2019	9:00 AM	9th shipment		1,074	1,179	911,466	12.21	17	0.89	
Echeverria 12-2 - Production CSG		512320211	3/20/2019	8:30 AM	9th shipment		98	1,262	45,905	19.18	4	0.40	
Echeverria 12-2 - Surface CSG		512320211	3/20/2019	8:30 AM	9th shipment		398	1,125	354,227	8.44	21	0.94	
Echeverria 13-2 - Production CSG		512319943	3/25/2019	1:30 PM	9th shipment		1,192	1,255	949,980	21.82	6	0.49	
Echeverria 13-2 - Surface CSG		512319943	3/25/2019	1:30 PM	9th shipment		0	1,076	14	8.70	11	#DIV/0!	
Echeverria 21-2 - Production CSG		512319594	3/20/2019	12:30 PM	9th shipment		916	1,382	662,406	27.96	5	0.36	
Echeverria 21-2 - Surface CSG		512319594	3/20/2019	12:30 PM	9th shipment		1,132	1,206	938,991	12.61	20	0.69	
Echeverria 4-2-2 - Production CSG		412320145	3/20/2019	10:30 AM	9th shipment		1,164	1,315	900,300	24.51	6	0.40	
Echeverria 4-2-2 - Surface CSG		512320145	3/20/2019	10:30 AM	9th shipment		1,125	1,203	934,521	12.46	19	0.64	
Haley 41-20 - Production CSG		512336194	3/18/2019	12:00 PM	9th shipment		0	2,884	36	32.86	9	1.00	
Haley 41-20 - Surface CSG		512336194	3/18/2019	12:00 PM	9th shipment		1,089	1,155	951,048	11.19	15	0.53	
Hermen 1B-33H - Production CSG		512347728	4/4/2019	9:30 AM	9th shipment		46	1,164	38,188	14.73	8	0.44	
Hermen 1B-33H - Surface CSG		512347728	4/4/2019	9:00 AM	9th shipment		46	1,224	111,886	21.58	5	0.85	
Hermen 1D-33H - Surface CSG		512347730	4/4/2019	9:30 AM	9th shipment		535	1,080	490,786	8.29	14	1.14	
Hermen 1F-33H - Surface CSG		512347729	4/4/2019	10:30 AM	9th shipment		87	1,137	58,743	12.80	9	0.25	
Hermen 1G-33H - Surface CSG		512347731	4/4/2019	11:00 AM	9th shipment		93	1,197	762,647	17.40	7	0.55	
Hermen 1H-33H - Surface CSG		512347732	4/4/2019	11:30 AM	9th shipment		64	1,077	59,072	6.84	18	1.21	
Hermen 1J-33H - Surface CSG		512347728	4/4/2019	12:00 PM	9th shipment		121	1,087	121,365	12.74	12	0.78	
Hermen 1J-33H - Surface CSG		512347734	4/4/2019	12:30 PM	9th shipment		305	1,082	282,186	8.03	14	1.22	
HWY 52 4B-32H - Production CSG		434579	3/25/2019	9:00 AM	9th shipment		1,026	1,068	960,587	6.90	15	1.49	
HWY 52 4B-32H - Surface CSG		434579	3/25/2019	9:00 AM	9th shipment		1,333	1,386	962,090	31.57	4	0.00	
HWY 52 4C-32H - Braden Head		512338253	3/20/2019	10:00 AM	9th shipment		1,100	1,193	925,617	19.81	5	0.80	
HWY 52 4C-32H - Production CSG		512338253	3/20/2019	10:10 AM	9th shipment		1,049	1,087	965,410	8.90	12	1.87	
HWY 52 4E-32H - Braden Head		512338252	4/20/2019	10:40 AM	9th shipment		737	1,086	672,516	8.07	17	0.58	
HWY 52 4E-32H - Production CSG		512338252	3/20/2019	11:00 AM	9th shipment		988	1,122	791,700	11.72	10	0.88	
HWY 52 4F-32H - Braden Head		512338245	3/20/2019	3:55 PM	9th shipment		1,139	1,211	940,542	22.42	4	0.99	
HWY 52 4F-32H - Production CSG		512338245	3/20/2019	4:35 PM	9th shipment		1,029	1,071	960,753	7.13	15	1.15	
HWY 52 4G-32H - Braden Head		512338249	3/20/2019	2:40 PM	9th shipment		956	1,072	885,192	0.15	15	8.98	
HWY 52 4G-32H - Surface CSG		512338249	3/20/2019	2:50 PM	9th shipment		995	1,072	928,171	7.52	13	1.64	
Kiyota 4G-39H - Production CSG		51240103	3/22/2019	7:40 AM	9th shipment		1,013	1,063	953,729	6.54	15	3.98	
Kiyota 4G-39H - Surface CSG		51240103	3/22/2019	7:40 AM	9th shipment		849	1,014	837,046	0.40	274	0.47	
Kiyota 4L-39H - Production CSG		51240164	3/22/2019	1:00 PM	9th shipment		1,041	1,052	955,373	1.43	22	1.62	
Kiyota 4L-39H - Surface CSG		51240164	3/22/2019	1:00 PM	9th shipment		942	1,020	923,440	1.23	81	0.48	
Kiyota 4M-39H - Production CSG		51245807	3/22/2019	7:50 AM	9th shipment		1,052	1,093	962,869	9.54	11	1.58	
Kiyota 4M-39H - Surface CSG		51245807	3/22/2019	7:50 AM	9th shipment		952	1,020	933,219	1.23	84	0.46	
Kiyota 4N-39H - Production CSG		51245805	3/25/2019	8:00 AM	9th shipment		1,022	1,072	953,367	7.50	13	3.45	
Kiyota 4N-39H - Surface CSG		51245805	3/25/2019	8:00 AM	9th shipment		947	1,025	924,534	1.84	64	0.50	
Morgan Hills 1D-7H - CSG		512343296	3/27/2019	9:30 AM	9th shipment		960	1,052	944,186	12.89	112	4.43	
Morgan Hills 1E-7H - Production CSG		512343296	3/27/2019	9:55 AM	9th shipment		977	1,033	945,855	3.06	32	0.64	
Morgan Hills 1E-7H - Surface CSG		512343296	3/27/2019	9:55 AM	9th shipment		1,029	1,086	947,898	8.89	12	4.25	
Morgan Hills 1H-7H - Production CSG		512343297	3/27/2019	10:00 AM	9th shipment		953	1,015	939,233	0.61	162	0.40	
Pratt 12-29 - Production CSG		512338225	4/1/2019	11:00 AM	9th shipment		1,172	1,242	943,603	17.57	8	0.45	
Pratt 12-29 - Surface CSG		512338225	4/1/2019	11:00 AM	9th shipment		1,109	1,178	941,827	12.99	12	0.70	
Pratt 21-29 - Production CSG		420033	4/1/2019	1:00 PM	9th shipment		1,205	1,244	964,852	20.34	6	0.54	
Pratt 21-29 - Surface CSG		420033	4/1/2019	1:00 PM	9th shipment		1,144	1,194	957,881	13.92	12	0.50	
Pratt 22-29 - Production CSG		51232434	4/1/2019	11:30 AM	9th shipment		8	2,669	3,105	70.99	2	0.26	
Pratt 22-29 - Surface CSG		51232434	4/1/2019	11:30 AM	9th shipment		0	3,901	44	81.92	1	0.21	
Pratt 4-2-9 - Production CSG		420035	4/1/2019	12:00 PM	9th shipment		1,184	1,262	938,122	20.71	7	0.40	
Pratt 4-2-9 - Surface CSG		420035	4/1/2019	12:00 PM	9th shipment		1,193	1,223	975,422	17.77	8	0.49	
Pratt 4F-29H - Production CSG		512338227	3/27/2019	2:30 PM	9th shipment		1,006	1,047	960,798	4.82	21	1.07	
Pratt 4G-29H - Production CSG		512338225	3/27/2019	2:40 PM	9th shipment		924	1,016	909,389	0.78	128	0.42	
Rasmussen 0-4-19 - Production CSG		512332255	3/29/2019	9:00 AM	9th shipment		1,158	1,207	914,520	20.92	6	0.44	
Rasmussen 0-4-19 - Surface CSG		512332255	3/29/2019	9:00 AM	9th shipment		886	1,313	674,850	20.51	9	0.48	
Rasmussen 2-8-19 - Production CSG		512332258	3/29/2019	10:15 AM	9th shipment		441	1,313	335,804	24.18	5	0.42	
Rasmussen 2-8-19 - Surface CSG		512332258	3/29/2019	10:15 AM	9th shipment		389	1,405	279,932	20.04	5	0.46	
Rasmussen H Unit 1 - Production CSG		512312558	3/29/2019	8:00 AM	9th shipment		1,177	1,212	971,421	18.81	6	0.70	
Rasmussen H Unit 1 - Surface CSG		512312558	3/29/2019	8:00 AM	9th shipment		0	1,010	2	0.00	#DIV/0!	#DIV/0!	
Ray Nelson 33-32 - Production CSG		512330607	4/5/2019	10:30 AM	9th shipment		1,101	1,251	880,425	19.28	7	0.44	
Ray Nelson 33-32 - Surface CSG		512330607	4/5/2019	10:30 AM	9th shipment		1,222	1,285	950,636	22.10	6	0.44	
Ray Nelson 34-32 - Production CSG		512330611	4/5/2019	10:00 AM	9th shipment		1,166	1,345	866,800	30.21	4	#DIV/0!	
Ray Nelson 34-32 - Surface CSG		512330611	4/5/2019	10:00 AM	9th shipment		880	1,208	728,447	15.13	10	0.53	
Ray Nelson 44-32 - Surface CSG		512330610	4/5/2019	9:30 AM	9th shipment		11	1,234	8,897	15.53	10	0.59	
Ray Nelson 8-8-32 - Production CSG		512330728	4/5/2019	8:30 AM	9th shipment		545	1,174	464,554	14.34	9	0.49	
Ray Nelson 8-8-32 - Surface CSG		512330728	4/5/2019	8:30 AM	9th shipment		1,112	1,240	896,533	19.65	7	0.45	
Reiner Farms 42-19 - Surface CSG		512322783	3/21/2019	8:00 AM	9th shipment		1,217	1,218	115,687	13.92	15	0.76	
Reiner Farms B Unit 2 - Surface CSG		512311687	4/5/2019	1:00 PM	9th shipment		0	3,380	19	75.42	2	0.42	
State 3G-16H - Production CSG		512337509	3/18/2019	8:30 AM	9th shipment		1,179	1,254	940,271	21.39	6	0.44	
State 3G-16H - Surface CSG		512337509	3/18/2019	8:30 AM	9th shipment		1,068	1,148	930,376	14.07	9	0.50	
Waste Connections 3G-29H - Production CSG		512338126	3/27/2019	1:05 AM	9th shipment		983	1,044	941,056	4.38	23	5.82	
Waste Connections 3G-29H - Surface CSG		512338126	3/27/2019	1:05 AM	9th shipment		915	1,012	904,167	0.07	2409	0.38	
Woolley Becky 2A-7H - Production CSG		512338111	3/26/2019	9:35 AM	9th shipment		998	1,052	949,108	5.30	19	0.30	
Woolley Becky 2B-7H - Production CSG		512338109	3/25/2019	12:00 PM	9th shipment		960	1,312	901,312	2.20	10	0.37	