

Lab #: 790243 Job #: 47544 IS-94649 Co. Job#:
 Sample Name: Dream Weaver 3A-21H / Production Casing Co. Lab#:
 Company: Crestone Peak Resources
 API/Well:
 Container: IsoTube®
 Field/Site Name: Bradenhead Testing
 Location:
 Formation:
 Sampling Point: 457521
 Date Sampled: 4/12/2021 10:30 Date Received: 4/26/2021 Date Reported: 5/20/2021

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	$\delta^{15}\text{N}$ ‰
Carbon Monoxide -----	nd			
Helium -----	0.0072			
Hydrogen -----	0.155			
Argon -----	0.0141			
Oxygen -----	0.065			
Nitrogen -----	40.46			
Carbon Dioxide -----	0.066	-4.4		
Methane -----	45.42	-49.6	-246	
Ethane -----	6.67	-33.5		
Ethylene -----	nd			
Propane -----	3.17	-29.2		
Propylene -----	nd			
Iso-butane -----	0.507	-31.3		
N-butane -----	1.29	-27.9		
Iso-pentane -----	0.448	-28.9		
N-pentane -----	0.614	-28.3		
Hexanes + -----	1.11			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 814
 Specific gravity, calculated: 0.858

Remarks: C81107 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

Lab #: 790244 Job #: 47544 IS-94649 Co. Job#:
 Sample Name: Miller 33-20 / Surface Casing Co. Lab#:
 Company: Crestone Peak Resources
 API/Well:
 Container: IsoTube®
 Field/Site Name: Bradenhead Testing
 Location:
 Formation:
 Sampling Point: 259366
 Date Sampled: 4/07/2021 7:55 Date Received: 4/26/2021 Date Reported: 5/20/2021

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	$\delta^{15}\text{N}$ ‰
Carbon Monoxide -----	nd			
Helium -----	0.0242			
Hydrogen -----	nd			
Argon -----	nd			
Oxygen -----	0.028			
Nitrogen -----	1.00			
Carbon Dioxide -----	0.67	-0.6		
Methane -----	90.26	-50.5	-237	
Ethane -----	5.56	-34.0		
Ethylene -----	nd			
Propane -----	1.68	-29.6		
Propylene -----	nd			
Iso-butane -----	0.183	-31.6		
N-butane -----	0.305	-27.3		
Iso-pentane -----	0.0704	-28.9		
N-pentane -----	0.0711	-27.2		
Hexanes + -----	0.152			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1086

Specific gravity, calculated: 0.621

Remarks: 16193046.1 9728

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

Lab #: 790245 Job #: 47544 IS-94649 Co. Job#:
 Sample Name: Miller 33-20 / Production Casing Co. Lab#:
 Company: Crestone Peak Resources
 API/Well:
 Container: IsoTube®
 Field/Site Name: Bradenhead Testing
 Location:
 Formation:
 Sampling Point: 259366
 Date Sampled: 4/07/2021 7:55 Date Received: 4/26/2021 Date Reported: 5/20/2021

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	δD ‰	$\delta^{15}\text{N}$ ‰
Carbon Monoxide -----	nd			
Helium -----	0.0118			
Hydrogen -----	0.253			
Argon -----	nd			
Oxygen -----	0.026			
Nitrogen -----	0.41			
Carbon Dioxide -----	2.90	4.1		
Methane -----	79.86	-47.4	-218	
Ethane -----	10.89	-30.1		
Ethylene -----	0.0004			
Propane -----	3.54	-25.7		
Propylene -----	nd			
Iso-butane -----	0.576	-29.3		
N-butane -----	0.914	-25.2		
Iso-pentane -----	0.299	-28.1		
N-pentane -----	0.219	-26.3		
Hexanes + -----	0.105			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1169

Specific gravity, calculated: 0.704

Remarks: 16193046.1 9728

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.